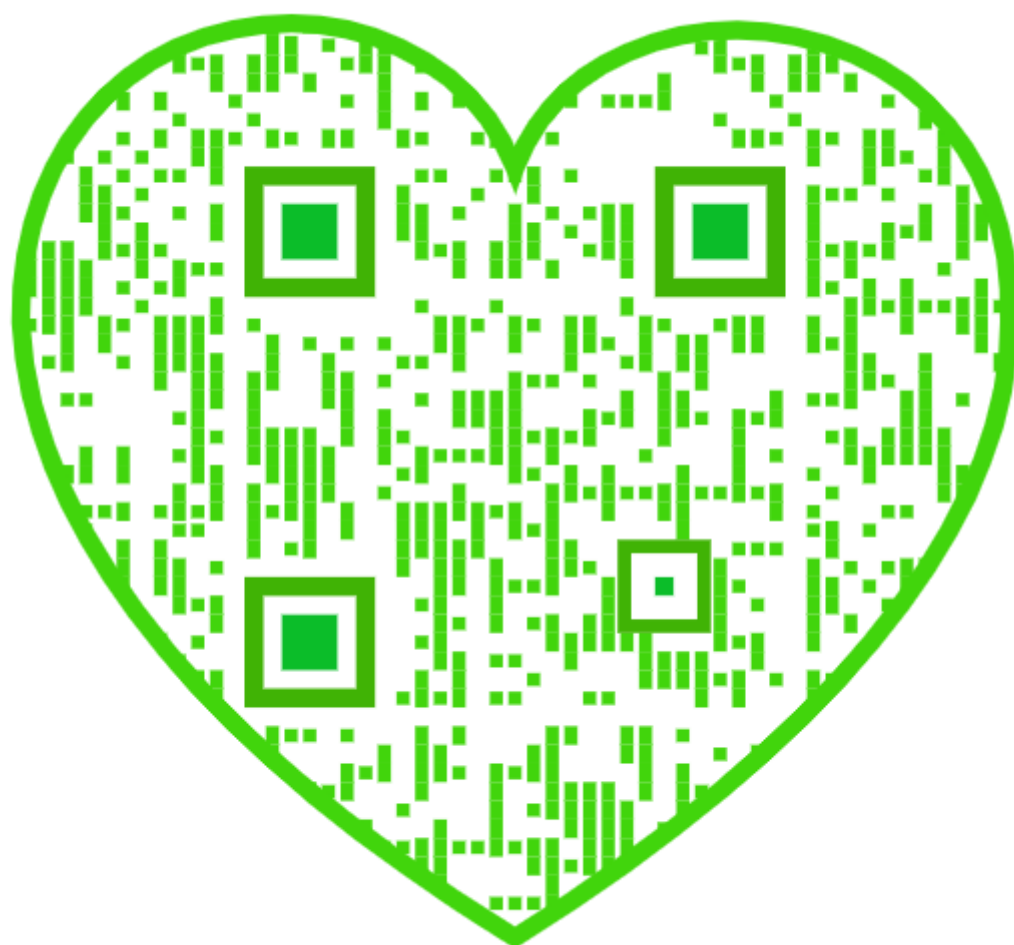


A full-length portrait of Doug McMillon, Walmart's CEO, standing with his hands clasped in front of him. He is wearing a blue V-neck sweater over a white collared shirt and dark trousers. Behind him is a large, stylized yellow Walmart spark logo, which consists of six rounded rectangular shapes radiating from a central point.

Walmart Reboots Again

It's up to
Doug McMillon
to make the retailer cool,
beat Amazon, fight
counterfeits, lure talent
to Arkansas—and appease
Donald Trump



ADVERTISEMENT

re:GENERATE

re:GENERATE



TRAVEL WITH
INTENTION

It is time to transcend traditional notions of luxury travel.

Today's adventurers can seek out the world's most exquisite destinations and actively contribute to their lasting beauty, while reinvigorating themselves both mentally and physically. This is the era of regenerative travel.

Research conducted for Bloomberg Media found that 77% of luxury travelers believe that "it is essential to consider sustainability" in international leisure travel. Beyond merely sustaining precious locations, regenerative tourism helps them thrive by supporting surrounding communities and their culture.

Those who seek to be among the first to experience this restorative form of luxury travel might look to The Red Sea, which is the world's pioneering destination of the concept, according to a new Bloomberg Media Briefing, Regenerative Tourism: Is It Catching On?

The Red Sea destination's unique ecology—with crystal-blue waters, unblemished coral reefs and a breathtaking landscape of rugged mountains and golden dunes—makes it a regenerative heaven.

The destination's resorts are fully powered by renewable energy, and it will deliver a 30% net conservation benefit by 2040.

“

Regenerative tourism helps you connect with your values. Leave the place better than you found it.”

AREEJ ALHUSSAN

Senior Manager, Adventure Sports

Local guides are on hand to connect travelers with diverse environments and the cultural traditions of their communities. The Red Sea coast is the perfect place to feed the mind, body and soul.

THE MIND



Start the day by taking a transformative wellness journey through personalized spa rituals that seamlessly blend the pristine local environment of The Red Sea at Neyrah Spa, Nujuma, a Ritz-Carlton Reserve. Guests are invited to rejuvenate through bespoke treatments that incorporate locally sourced ingredients, such as sea salt harvested directly from the surrounding waters of Ummahat Islands. Each aspect of the experience is designed to encourage visitors to reconnect with themselves, their natural environment and the vibrant heritage of the region. Afterward, fill the senses with mind-blowing culinary treats prepared by Saudi chefs who reinvent traditional dishes using spices sourced from across Saudi Arabia.

THE BODY



Head to the nearby granite mountains of Desert Rock, one of the world's most dramatic desert landscapes. Hike, bike, climb or ride a mountain zip line while absorbing the endless views and soothing stillness. "We're making sure that in every step we take, every decision we make, that we are trying to do the best in the interest of the environment and the people living here," says Areej Alhussan, a Senior Manager for Adventure Sports from Saudi. Later, on the tranquil waters of the Red Sea, travelers can practice standup paddleboarding (SUP) yoga—striking a warrior pose on the open sea or lying down to meditate afloat as the sun goes down.

THE SOUL



Beneath the waves, the dazzling and heat-resistant coral of the Al Jadir reef remains well preserved. The little-explored reef's kaleidoscopic mix of colors and abundance of sea life, including manta rays, dugongs and turtles, means that few places left on Earth can match it for scuba diving, and divers must follow a strict code of conduct. In the evening, above desert dunes 15 minutes from the coast, the clear darkness of the night sky explodes into celestial life to delight stargazing tourists below. Ahmed AlThaher, a Saudi astro-tourism guide, keeps alive the ancient tradition of Arabian astronomy, whose star and constellation names form the basis of numerous names in Western astronomy. "It is engraving your culture in the sky," he says.

ADVERTISEMENT

The Red Sea

NUJUMA,
A RITZ-CARLTON
RESERVE

THE ORIGINAL INFLUENCER



RANGE ROVER





PATEK PHILIPPE
GENEVE

BEGIN YOUR OWN TRADITION

THERE IS NO STAR



VIEW THE FILM



A STORY ABOUT COLLECTIONS

“Why does Patek Philippe have so many collections? Because while each collection has a different character, each one allows us to innovate and to express ourselves.

Of course, this takes more time than if we had just one collection. But for me, creative freedom is at the heart of our family-owned watch company.

This, and the knowledge that not all people who like our watches, like the same watch. It is for this reason that there is no hero watch at Patek Philippe. There is no star.”



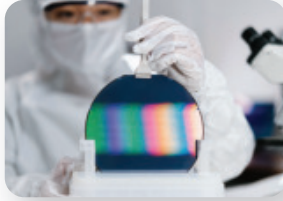
THIERRY STERN
PRESIDENT, PATEK PHILIPPE



PATEK PHILIPPE SEAL
[PATEK.COM/PHILOSOPHIES](https://www.patek.com/philosophies)

Industry 5.0

**Transforming
the Manufacturing
Paradigm**



Manufacturing has long been recognized as one of the most challenging sectors to decarbonize. With its heavy resource intensity and high greenhouse gas emissions, it accounts for almost one-third of energy consumption and energy-related carbon emissions globally, according to the United Nations Industrial Development Organization.

Yet a significant shift is underway. As the rapid development and adoption of artificial intelligence (AI) transforms businesses, and corporate demand for sustainability, supply chain resilience and transformation capital grows, a new era of advanced manufacturing is emerging, according to Amit Midha, CEO of Alat, a new global enterprise in Saudi Arabia that aims to transform manufacturing.

"Today's supply chain dynamics demand a fundamental shift in thinking," Midha says. "Geopolitical complexities, economic uncertainties and environmental imperatives are pushing us beyond traditional efficiency-focused models toward true resilience. I believe this evolution is critical."

Sustainability and efficiency are business imperatives

In partnership with powerhouse companies like Softbank and Lenovo, Alat is at the forefront of this revolution. With plans to bridge the global transition funding gap with an investment of \$100 billion over the next five years, Alat is

developing a sustainable manufacturing hub that will lead the transformation of advanced manufacturing.

MANUFACTURING

**1/3 of energy
consumption**



**Manufacturing accounts
for almost 1/3 of energy
consumption and energy-related
carbon emissions globally.**

Powered using clean energy, the Riyadh-based hub is focused on nine key industries including semi-conductors, smart devices, smart buildings, smart appliances, smart health, advanced industrials, next gen infrastructure, electrification and AI infrastructure. With a focus on research and development into new technologies and energy efficiency, Alat is partnering with some of the world's leading innovators and universities to reimagine multiple

industrial manufacturing processes from the ground up.

As with previous industrial revolutions, technological innovation is the foundation of this next generation of manufacturing. Advanced AI, robotics and automation systems are pivotal to the future processes of the Fifth Industrial Revolution ("Industry 5.0").

While the focus of Alat's world-class sustainable manufacturing hub is to harness this technology to transform global electronics and advanced industrials and deliver sustainable manufacturing solutions, the benefits of sustainable advanced manufacturing don't stop at technological advancements, improved processes and lower carbon emissions. The progress is vital to future-proof manufacturing businesses by delivering greater production efficiencies, reducing financial, regulatory and climate risks—and improving bottom lines.

Generative AI algorithms, for example, can predict and manage equipment maintenance, reducing downtime and energy use. And manufacturing connectivity through the Internet of Things can help manufacturers achieve new efficiencies in their use of materials, labor and energy.

Crucially, the integration of IoT and AI into supply chains allows manufacturers to monitor and automatically adjust

energy consumption in real time, which is critical to achieve sustainability goals. Today's consumers and regulators expect companies to disclose their carbon footprints, and manufacturers that are proactive in reducing emissions have a competitive edge as they build trust with environmentally conscious stakeholders and position themselves favorably in global markets.

Calling the need to transition a "moral and business imperative," Midha says the integration of AI and automation is creating a more efficient industrial paradigm in which sustainability is no longer a choice, but a given. "As carbon accounting becomes stricter, advanced manufacturers face an ultimatum to adopt sustainable practices or face potential financial and operational risks," he says.

Manufacturing partnerships drive innovation

AI-driven energy and process efficiencies will be vital to meet net-zero targets, but manufacturers must also harness green materials and increase their use of clean energy to reduce carbon emissions and protect their financial performance. This will require a significant injection of capital, with a mix of electrification, renewable energy and efficiency improvements necessary to meet these goals.

According to the International Renewable Energy Agency, the use of renewable power must triple by 2030 to meet the world's 1.5°C target, while energy efficiency improvements must double. Although global investment in energy transition technologies has soared—a record \$1.8 trillion was invested into clean energy and transition technologies in 2023, a 17% year-on-year increase—the sustained investment needed to achieve these targets is far beyond any private-sector commitment.

Midha says partnerships will be instrumental to bridge this gap as they help provide the funding and innovative thinking needed to create a robust and sustainable manufacturing ecosystem that aligns with international energy

transition needs. For this reason, partnerships are foundational to Alat's strategy.

"Alat builds partnerships to ensure that the transformation of the industrial sector can happen on a global scale. These partnerships catalyze innovation, reduce risk, improve competitiveness, foster market expansion and enable shared access to resources," he says. "Ultimately they drive the entire industry toward a more sustainable trajectory and enhance innovation."

Alat's most recent partnership is a US\$2 billion investment and strategic collaboration deal with global technology giant Lenovo. Completed in January 2025, the partnership will see Lenovo establish a new Middle East and Africa regional headquarters and sustainable manufacturing hub in Riyadh to capitalize on the growth opportunities in Saudi Arabia and beyond. Alat expects the partnership to create 15,000 direct and 45,000 indirect jobs locally and to generate a cumulative GDP impact of \$10 billion, in line with Saudi Arabia's Vision 2030 goals.



For Alat, the goal is not just technology innovation, but also creating resilient supply chains and supporting international businesses in their sustainable transitions through these strategic alliances."

Amit Midha
CEO, Alat



"Alat has partnered with companies from around the globe from day one. The company uses a rigorous, data driven and strategy led approach to identify and integrate with partners, and

deeply engages with partner companies at the C-suite and board level to ensure there is alignment and a commitment by both parties to fulfil our ambitious mission," says Midha.

"For Alat, the goal is not just technology innovation, but also creating resilient supply chains and supporting international businesses in their sustainable transitions through these strategic alliances."

Manufacturing a sustainable future

As AI, automation and clean energy drive down costs and build resilience, and investors increasingly back low-carbon initiatives, the manufacturing sector is on the tipping point of a significant transformation.

Advanced technologies and innovation are key to achieving this transformation. However, incremental change will not be enough, according to Dr. Stefan Hoetzl, President of the Smart Appliances business unit at Alat. He says that a fundamental reshaping of manufacturing is needed to reach net zero, and that this requires ongoing dedication from industry leaders and policy makers, and the innovation and funding that Alat can provide.

As sustainability moves to the forefront of corporate strategy, the manufacturing industry's capacity to adapt could very well determine its future profitability and resilience in an era increasingly defined by climate accountability. Alat's out-of-the-box thinking will be critical in building this sustainability and resilience, and its innovation hub could place Saudi Arabia on the map as a global manufacturing powerhouse.

www.alat.com



The CEO Radar

The Signals Shaping Tomorrow

Q1 2025

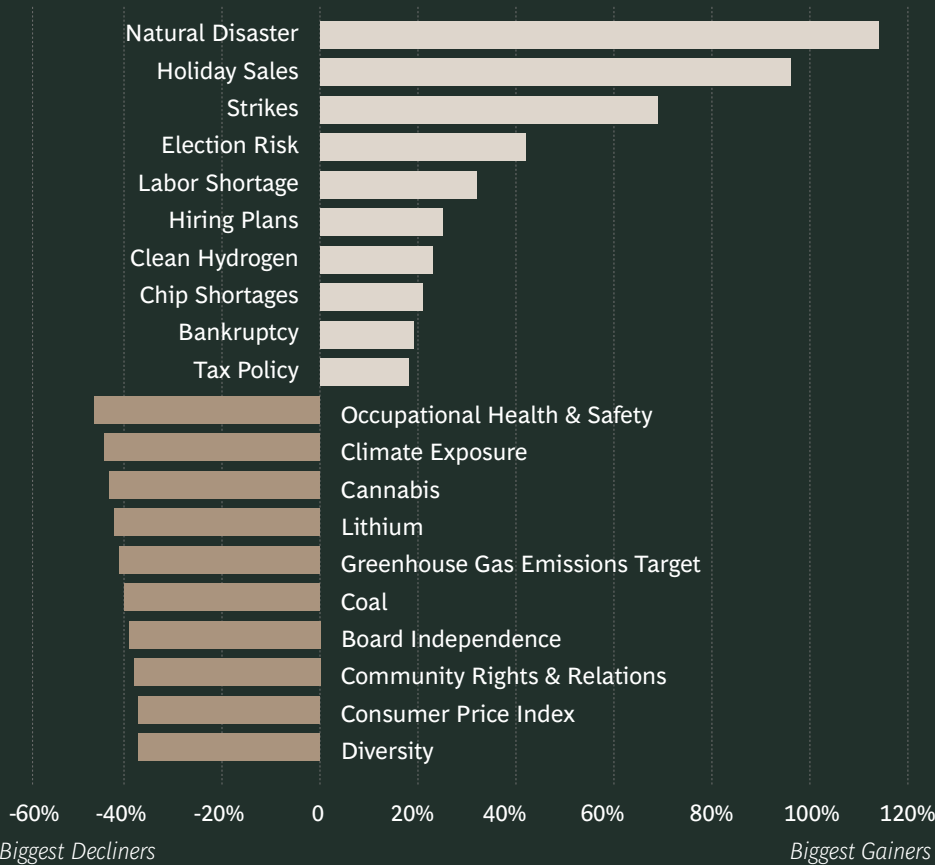
After voters cast their ballots for change in dozens of national elections in 2024, CEOs are working to quickly adapt to a new global agenda focused more on trade and taxes, and less on environmental and cultural issues.

The Radar unpacks the leading topics discussed on almost 4,700 earnings calls worldwide in Q4, enabling chief executives to compare their agendas to those of their peers, and to the market's expectations.

That's the conclusion of the CEO Radar—a new tool from BCG and Bloomberg Media Studios to help CEOs determine which issues truly deserve their time and attention.

Q3 2024 vs. Q4 2024

CEO Mentions of Trending Topics



CEOs discussed the topic of Election Risk in Q4 at record levels—163% more often than they did during the last US presidential election. Meanwhile, mentions of Community Rights & Relations, Board Independence and Diversity continued their years-long declines.

Q4 2024

Top Topics: CEOs vs. Analysts

CEOs

1.	Leverage
2.	New Products
3.	Headwinds
4.	Market Share
5.	Renewables
6.	AI & Machine Learning
7.	Partnerships
8.	Interest Rates
9.	Tax Rate
10.	Backlog

Analysts

1.	Competition
2.	Headwinds
3.	Market Share
4.	Leverage
5.	New Products
6.	China
7.	Backlog
8.	Inflation
9.	Renewables
10.	Partnerships

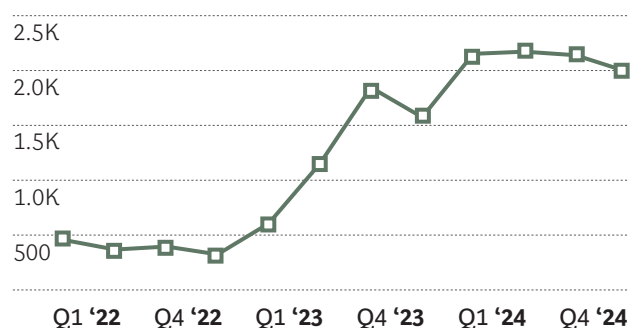
AI & Machine Learning ranks as the 6th most-mentioned topic for CEOs, but it barely makes the top 15 topics for analysts, who function as a proxy for the market. By contrast, China comes in 6th place for analysts, while CEOs rank it 21st.

Q1 2022–Q4 2024

AI Agents Rising

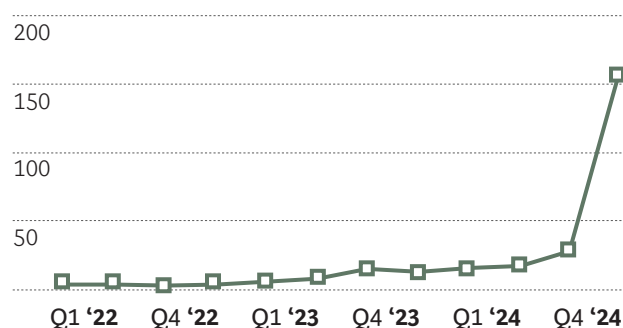
AI remains a top-10 topic for CEOs, and their number-one tech topic by a wide margin. But the conversation is diverging along regional lines, while evolving to become more strategic and focused.

AI & Machine Learning Mentions



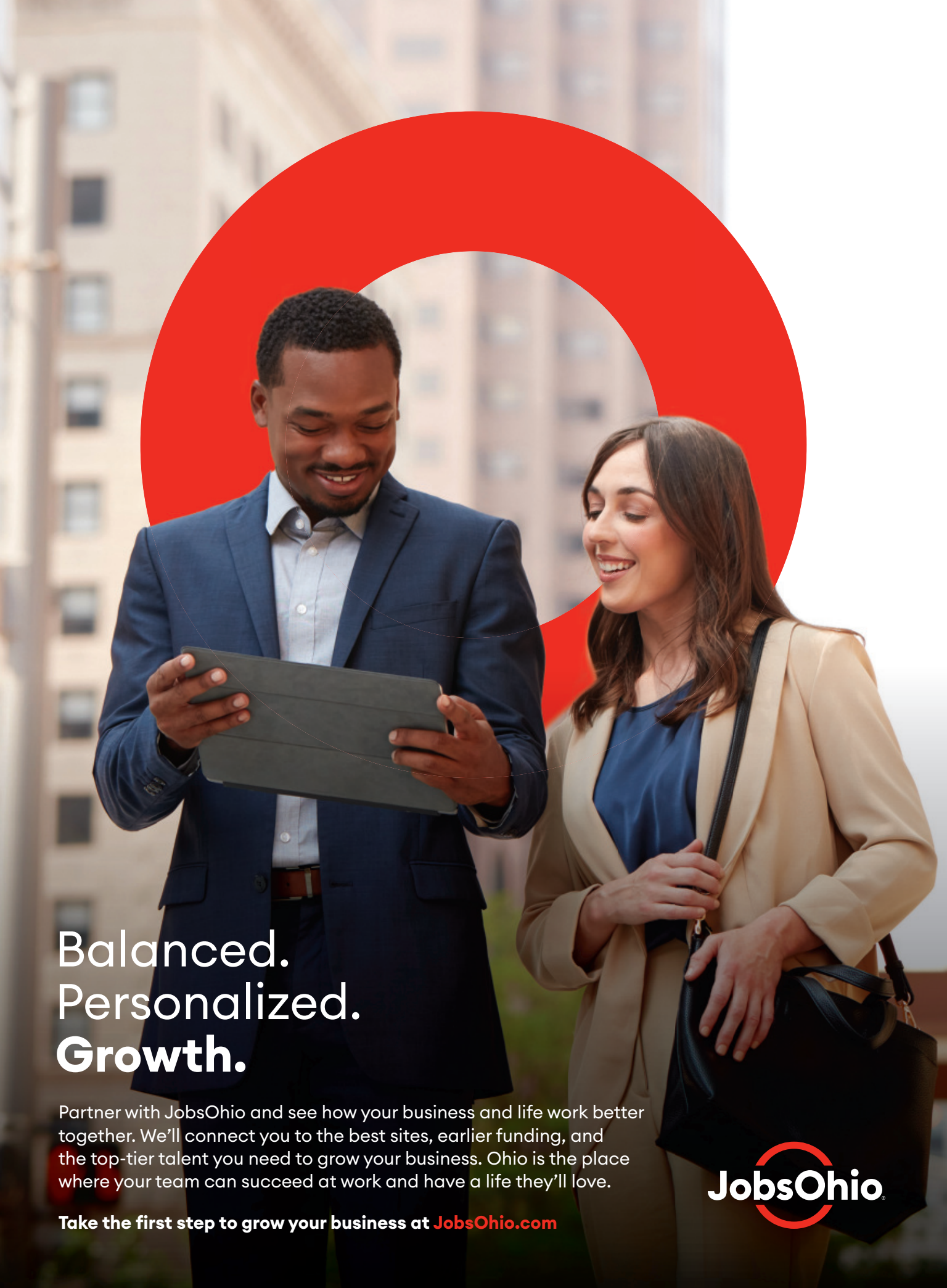
AI & Machine Learning mentions dipped 7% in Q4. European companies led the decline, with their CEOs mentioning the topic 39% less compared to the previous quarter, while North American mentions fell just 1%. By contrast, Asian mentions rose 21%.

Agentic AI & AI Agents Mentions



Meanwhile, within AI, mentions of Agentic AI and AI Agents have surged from just 24 in Q3 to 105 globally in Q4. Indeed, a recent BCG survey found that 30% of executives have already committed to having AI agents play a central or complimentary role in their AI transformations.





Balanced. Personalized. Growth.

Partner with JobsOhio and see how your business and life work better together. We'll connect you to the best sites, earlier funding, and the top-tier talent you need to grow your business. Ohio is the place where your team can succeed at work and have a life they'll love.

Take the first step to grow your business at JobsOhio.com





■ PHOTOGRAPH BY FEDERICA VALABREGA FOR BLOOMBERG BUSINESSWEEK

Marbles from the Torlonia Collection in Rome waiting for shipment ▷ 95

Contents

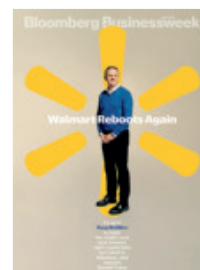
Remarks	Elon Musk, DOGE and the fine art of the wrecking ball	14
In Context	The fire next time: How to solve the insurance crisis	18
	Ukrainian women are driving the wartime economy	20
	A slump hits 7-Eleven in the US. Is the answer in Japan?	22
	The Right Stuff: What's blooming this spring	24
	Era of the tech zombie unicorn	26
	Feeling a squeeze, OJ wants its place back in the sun	28
	The fast and furious world of currency trading	33
	AI develops at a dizzying pace. Chatbot Arena is there	33
	A Walk With: Oura CEO Tom Hale	36
In View	Will China prosper by embracing creative destruction?	39
	The tech bromance of Trump 2.0	42
	In med spas, there are plump profits to be made	44
	This boy's life: A review of Bill Gates' <i>Source Code</i>	48
In Depth	Risk is intrinsic to investing, but 2025 is its own animal	51
	Questions about personal finance? We've got answers	52
	When it comes to retirement, Indians go for gold	56
	Scams of every color are parting a fool and his money	60
	The strip-and-flip fellas want a crack at your 401(k)	61
	Here's what may be in store for taxes under Trump	62
	When these influencers talk, people listen	64
		66
		76
		84
Pursuits	A first glimpse of Rome's legendary lost marbles	95
	The best spring offerings on page, stage and screen	100
	Far from the madding crowd, English football goes VIP	102
	Teeing off at two world-class courses in New Zealand	104
	Skip the flight food. Good options are near the gate	106
	CEO Diet: Packing essentials from seven executives	107
Exit Strategy	It's uncharted territory in this month's puzzle	108

Walmart's CEO has a new pitch for—everyone Your stolen car is being shipped to West Africa Inside the oddball cons of a dot-com pioneer

Contributors

- **Max Chafkin** is a *Bloomberg Businessweek* senior reporter who's been covering Elon Musk for 18 years. He co-hosts the podcast *Elon, Inc.*
- **Devin Leonard** is a senior writer, and **Jaewon Kang** is a reporter, both at Bloomberg News. They spoke to more than 30 people for their story about changes at Walmart.
- Santiago-based investigative reporter **Jonathan Franklin** has been writing about criminal rackets for 21 years. After spending three months inside the world of car theft gangs, he's glad he long ago traded his automobile for a bicycle. Freelance digital illustrator **Callum Rowland** is based in London, where he also works as an architect.
- Investigative reporter **Brent Crane**, based in San Diego, is pleased to see UFOs reemerge as a national obsession. When he met Joseph Firmage in prison, the dot-com pioneer and alien enthusiast pitched him an "exclusive" follow-up story, promising news of a fantastic innovation.
- **Gary Sernovitz** is an author and a managing director at Lime Rock, an oil- and gas-focused private equity firm. He was formerly an oil equity research analyst at Goldman Sachs.

Cover



Photograph by Vincent Tullo. When he's shooting busy CEOs such as Walmart's Doug McMillon, Tullo says, "your 30-minute shoot can quickly turn into 5 minutes, so there isn't much time to experiment. The goal was to keep it as simple as possible."

Answers for Chart Blanche
Objects Launched into Space Each Decade, by Country: ■ US ■ UK ■ China ■ Russia ■ How Americans Commute to Work: ■ Drive alone ■ Work at home ■ Take public transportation ■ Walk, bike, taxi and other The Countries With the World's 40 Busiest Airports in 2023: Clockwise, from top of circle: US, Mexico, UAE, India, China, UK, Turkey ■ US Electricity Generation, by Fuel Type: ■ Coal ■ Natural gas and petroleum ■ Nuclear ■ Renewables

How to contact Bloomberg Businessweek ► Email bwreader@bloomberg.net ► X @BW ► Instagram @businessweek ► Facebook facebook.com/bloombergbusinessweek ► Ad sales 212 617-2900, 731 Lexington Ave., New York, NY 10022 ► Subscription help businessweekmag.com/service ► Reprints/permissions 800 290-5460 x100 or businessweekreprints@theygsgroup.com



MANSIONS IN THE SKY

Life's fine details. Finessed.

An exclusive oceanfront collection of 37 residences by Zaha Hadid Architects, sited on 200 feet of direct beachfront in Billionaire's Triangle—Miami's most revered enclave. Each private retreat is a culmination of masterful architectural vision, where sculptural curves frame sweeping ocean views and a translucent pool floats 125 feet high between sea and sky. Bespoke butler service is choreographed within the residences and throughout over 55,000 square feet of curated designer amenities.

Four- to Six-Bedroom Mansions from \$15 Million

THE
DELMORE
SURFSIDE MIAMI

305-707-0048 | Info@TheDelmore.com
THEDELMORE.COM

DAMAC
INTERNATIONAL

DouglasElliman
Development Marketing

ORAL REPRESENTATIONS CANNOT BE RELIED UPON AS CORRECTLY STATING THE REPRESENTATIONS OF THE DEVELOPER. FOR CORRECT REPRESENTATIONS, MAKE REFERENCE TO THIS BROCHURE AND TO THE DOCUMENTS REQUIRED BY SECTION 718.503, FLORIDA STATUTES, TO BE FURNISHED BY A DEVELOPER TO A BUYER OR LESSEE. This is not intended to be an offer to sell, or solicitation to buy, condominium units to residents of any jurisdiction where prohibited by law, and your eligibility for purchase will depend upon your state of residency. This offering is made only by the prospectus for the condominium and no statement should be relied upon if not made in the offering documents. This condominium is being developed by East Oceanside Development, LLC, a Delaware limited liability company ("Developer") and this offering is made only by the Developer's prospectus for the Condominium. No statement should be relied upon if not made in the Developer's prospectus. The information provided, including pricing, is solely for informational purposes and is subject to change without notice. ☒



The Great DOGE Panic

● By Max Chafkin

In 1912 parishioners from a few churches in Columbus, Ohio, pooled their money to start a charity to provide pro bono care for the poor. Over time the organization, now called Lutheran Social Services of Central Ohio, grew to employ about 700 and include food pantries that served more than 2 million meals last year, a domestic violence shelter that cared for almost 1,000 adults and children, shelters and free health care for 1,100 people who can't afford a place to stay, and affordable housing for another 1,000 seniors and disabled people. This work is subsidized by local churches, the United Way, local and state authorities, and the federal government, which is the organization's single largest contributor and accounts for roughly 20% of its annual budget.

Beneficiaries pay, too, when they can. In general, though, client fees are modest

and many services are free. Many of the people the Lutheran nonprofit helps have nowhere else to go. Some are victims of domestic violence. "In today's economy, when you get sick or lose your job, things can spiral," says Rachel Lustig, the Lutheran group's chief executive officer. "Our services help people through that and get them to a place where they can contribute to society."

Lustig's organization is one node in a vast network of private not-for-profits that make up a more than \$200 billion chunk of the US service sector. They're load-bearing links in America's safety net. While many are affiliated with religious orders, Lustig says their messages tend toward the universal. "Jesus called us to care for the poor, but these aren't values that Christian churches have a monopoly over," she says. She'd never thought of her work as controversial until Elon Musk found his way to Washington.

On Jan. 31, Musk's newly formed Department of Government Efficiency, known as DOGE (as in the dog-themed cryptocurrency), acquired access to payment systems inside the Department of the Treasury. Chaos ensued. A top

Treasury official tried to block Musk, then abruptly retired. A top Senate Democrat issued a panicked letter warning that Musk could cut off Social Security payments. Nineteen state attorneys general and three large labor unions filed lawsuits to stop Musk from accessing the systems.

Musk did what he usually does when he finds himself at the center of a scandal: He kept posting. "Very few in the bureaucracy actually work the weekend, so it's like the opposing team just leaves the field for 2 days!" he wrote on X, his social media platform, on Feb. 1, a Saturday.

Later that night he came across a message from Michael Flynn, the retired general who pleaded guilty to lying to federal investigators during Donald Trump's first administration. (Near the end of his first term, Trump pardoned Flynn, who served as national security adviser for about three weeks in 2017.) Flynn, now a right-wing influencer and activist, posted a spreadsheet listing federal grants to a dozen or so Lutheran charities. They included Lutheran Social Services of South Dakota (\$1.4 million), Lutheran Services Carolinas (\$600,000), Allegheny Lutheran Social Ministries (\$17.1 million) and two grants to

ILLUSTRATION BY DAPHNE GESLER

Lustig's group worth \$8.2 million. Flynn referred to "the 'Lutheran' faith"—he put the Protestant denomination's name in scare quotes—as a "money laundering operation" and called for federal funds to be cut. At 3 a.m., Musk reposted Flynn's commentary and said he was taking action. "The DOGE team is rapidly shutting down these illegal payments."

By the time Lustig saw the posts, there were replies accusing the Lutheran charities of facilitating illegal immigration and child sex trafficking. "It felt very shocking," she says. The two grants that Musk had suggested would be canceled are supposed to be paid out as reimbursements for expenses.

Lutheran Social Services of Central Ohio hasn't submitted a reimbursement request since Musk's posts, and Lustig doesn't know what will happen the next time it does. She doesn't know why her group was singled out. "It's the lack of understanding that's frustrating," she says. "And then your heart goes out to the people that we serve, who otherwise will not have access to care."

The frustration, fear and uncertainty have been repeated across the country—not only at other Lutheran charities, but also among Catholic aid workers abroad whose jobs are at risk amid Musk's attempted closure of the US Agency for International Development (USAID); cancer researchers whose National Institutes of Health (NIH) funding is suddenly in jeopardy; and civil servants who've spent weeks in limbo, unable to work under the conditions Musk has created but, as yet, unwilling to quit. Musk has portrayed all of this as healthy, a sort of strategic chaos that's needed to shake up a system he and many other Republicans consider broken. As Trump put it at a press conference in early February, "We have to take some of these things apart to find the corruption."

But to Democrats, Musk's actions look like something else: a helter-skelter attack on the state. Officially he's a special government employee with little formal authority, leading a modest agency tasked with modernizing federal tech. But his power is growing: On Feb. 11, Trump signed an executive order giving Musk's team approval over new hires at

most government agencies and asked agencies to prepare for "large-scale" layoffs. Moreover, his status as a megadonor and his close relationship with Trump have allowed him to pretty much say and do whatever he wants. Both the president and congressional Republicans have mostly deferred to Musk. "We have a tech billionaire with a huge media platform running the government," says Lindsay Owens, a former policy adviser to Massachusetts Democratic Senator Elizabeth Warren who's now executive director of Groundwork Collaborative, a liberal think tank. "We're all guinea pigs."

Trump retook the White House in November with a massive assist from Musk. The official tally puts Musk's 2024 election contributions at close to \$300 million. While his growing net worth over the past few months reflected market confidence that his investment would pay off, pundits were predicting his partnership with Trump wouldn't be able to survive both men's egos. So far, at least, the latter take has aged poorly.

In the early weeks of his second term, Trump has seemed to relish the dysfunction Musk generates. Musk has taken up full-time residence in the Eisenhower Executive Office Building. Trump has ignored opportunities to distance himself from Musk (such as when Musk made light of the Holocaust mere days after giving what looked to many like a Nazi salute). Trump has also shrugged off Musk's apparent disloyalty, as when Musk responded to a White House announcement of major artificial intelligence investment by calling the whole thing a sham. "He hates one of the people in the deal," Trump said afterward, referring to the rivalry between Musk and one of the investors, OpenAI CEO Sam Altman. "I have certain hatreds of people, too."

The next day, Jan. 23, federal workers began receiving cryptic messages from an unfamiliar email address: HR@opm.gov. The messages said the government was testing "a new distribution and response list" and asked employees to reply "yes." These weren't phishing attempts, as many workers assumed, but they were part of a sort of hack: Musk's employees had sent

the emails from a private server they'd brought into the Office of Personnel Management, according to a class-action lawsuit. (The government says the suit has no legal basis.) By the time another email followed a few days later, employees were catching on. "Our government is systematically being dismantled," an anonymous post on the Fednews subreddit warned.

This turned out to be more or less correct. On Jan. 28, 2 million civil servants received a note from the mysterious HR account that mentioned a number of Musk-inspired presidential directives—remote work arrangements would be canceled, government departments would see drastic layoffs—and offered workers a choice. They could accept the risk of being terminated, or they could resign and be paid through September. All they had to do was respond with a one-word reply: "resign." The subject line of this email ("Fork in the Road") left no mistake as to the policy's author. Musk had used the same words in a subject line after taking over Twitter, at the same time he was laying off about 80% of the company's staff.

Musk had joked about prepping for his government role by rewatching *Office Space*, the 1999 comedy about a group of workers fired by management consultants known as "the Bobs." Unaware, perhaps, that the Bobs aren't the heroes of the film, Musk posted memes in which he imagined himself as one of them—and then attempted to re-create the humiliating dynamic that *Office Space* had satirized.

In the days that followed the ultimatum email, Musk's team, many of them men in their late teens and early 20s who seem to share his edgelord sensibilities, fanned out into government agencies, ostensibly to identify expenses that could be cut. They demanded access to records, rifled through desks, threatened those who resisted, and refused to give their last names when questioned by workers. When media outlets have named Musk's DOGE employees, he has responded by threatening criminal prosecution. (Officially he doesn't have that power, but he has influence with those who do.)

Toward the end of the week, Musk turned his sights on the Bureau of the Fiscal Service. The BFS is the division ►

◀ of Treasury that processes the trillions of dollars in payments made each year by the government. Think of it as a giant Venmo, except that instead of payments for Girl Scout cookies or bar tabs, it's Social Security checks, Medicare reimbursements, interest on the national debt, grants for charitable groups such as Lustig's. The division doesn't decide who should get paid—that's the job of the federal agencies that oversee the payees. Or at least, that's how things are supposed to work. Lately, though, the business of the BFS has taken on the tenor of a farce.

On Jan. 31 the *New York Times* reported that David Lebryk, the Treasury Department's highest-ranking nonpolitical employee, had retired after refusing to grant Musk access to the BFS. The White House has insisted that Treasury Secretary Scott Bessent only gave Musk "read-only" access to BFS data, but then *Wired* and *Talking Points Memo* reported that a DOGE staffer indeed managed to modify code for two BFS systems. That staffer, Marko Elez, resigned following a *Wall Street Journal* report about a series of racist messages he'd posted on X. Soon, however, Musk announced that Elez would be back on the job, because "to err is human, to forgive divine." Musk also contradicted the White House's claims and said that yes, he was the one who'd stopped Treasury payments.

Soon after the post accusing the Lutheran charities of money laundering, Musk claimed to have personally defunded USAID. With a budget of roughly \$40 billion a year, the agency has been a pillar of American soft power since the Kennedy administration and has been widely credited with helping to arrest the global AIDS pandemic in sub-Saharan Africa. Musk, who's been railing against the specter of a "White genocide" in South Africa, portrayed the relief agency instead as a locus of far-left politics and fraud. "We spent the weekend feeding USAID into the wood chipper," he wrote on X on Feb. 3.

The agency told employees that all but "essential personnel" would be placed on leave on Feb. 7. Workers based overseas would have to come home within 30 days. That day, Musk posted a meme featuring an open door labeled "USAID" with a pool of blood on the ground. Musk, dressed in

"We spent the weekend feeding USAID into the wood chipper"

a black robe and carrying a sickle, was preparing to knock on another door, this one labeled "Department of Education."

Depending on whom you ask, Musk's chaotic tenure has amounted to either an unprecedented disruption of American state capacity or historic grandstanding that won't add up to much. On Feb. 7 a judge issued a restraining order that blocked the shutdown of USAID. The next day a different judge temporarily banned Musk and his associates from accessing the BFS at Treasury. Even if Musk succeeds in overturning these orders, he'll have barely made a dent in his initial promise to cut "at least \$2 trillion" from the federal budget. Lately he's revised that promise down to \$1 trillion.

This has led to some complaints that Musk is unserious. In February, Steve Bannon, who ran Trump's first campaign and has emerged as Musk's loudest conservative critic, complained on his podcast *War Room* that Musk was exaggerating the number of fraudulent payments going through the BFS. Bannon suggested that he instead look at defense spending and that failure to do so would be evidence of a conflict of interest. "The Pentagon should be ripe for significant cuts," Bannon says in an interview with *Bloomberg Businessweek*. "DOGE needs to deliver now so we don't have another \$2 trillion deficit, which we are on the path to have."

Harrison Fields, a White House spokesman, says DOGE has been able to rack up some early wins by focusing on waste, fraud and abuse. "There's some obvious things, like the USAID stuff," he says. "That's not to say that bigger fish to fry won't be addressed at a later time." Fields says Musk recently completed an ethics course and will file a financial disclosure but, as a special government employee, he wasn't required to release it publicly.

While right-wing critics have focused

on Musk's potential conflicts of interest, Democrats have portrayed the opening weeks of the Trump administration as bordering on a coup. "In the building behind me, Elon Musk is seizing power from the American people," Senator Warren said at a rally outside of Treasury. "No one elected Elon Musk to nothing." Behind this rhetoric, and many of the lawsuits against Musk, is a constitutional complaint.

The Appropriations Clause gives Congress the power of the purse, meaning the president can't spend money without the legislature's approval. Practically, that's been interpreted to mean presidents must spend the money Congress directs them to spend. In 1974, after President Richard Nixon began simply refusing to implement a host of domestic programs, Congress passed the Impoundment Control Act as part of an effort to rein him in. Withholding funds to USAID likely violates that law as well as the law that established USAID as an agency, says Bobby Kogan, a former adviser to the Office of Management and Budget under President Joe Biden and a senior director at the Center for American Progress.

Kogan says that the decision to withhold payments to groups Musk finds distasteful, as he appears to have done to the Lutheran charities, is also likely a breach of contract—and that the courts will ultimately force the government to pay its bills, along with penalties. "We don't want a president who can unilaterally say what you can spend," he says. "We don't want an appropriations king." Fields says Musk's actions have been lawful and DOGE is complying with all appropriate security measures to safeguard agency data.

While the courts work through the DOGE lawsuits, aid workers like Lustig are holding their breath. For now, she's hoping that maybe Musk was simply spouting off and that her organization will soon be paid for the work it's been doing. If not, she'll have to start thinking about reducing its services. "These grants are much more than expenses on a spreadsheet," she says. "They are your domestic violence shelter, your food pantry, your homeless shelter. If these go away, it's not like we can build them all back tomorrow." ■ —With Gregory Korte

QATAR ECONOMIC FORUM

منتدى قطر الاقتصادي

Powered by Bloomberg

May 20-22, 2025

Doha, Qatar

Connect with the region
shaping the future of
global business.

Join us for our 5th edition.

5



Learn more

QatarEconomicForum.com

Official Partners

وزارة التجارة والصناعة
Ministry of Commerce and Industry
دولة قطر • State of Qatar



المدينة الإعلامية
Media City
قطر • Qatar

Premier Sponsor



Participating Sponsor



In Context

A new way to think about the world





The Crisis in Property Insurance

● By Laura Bliss

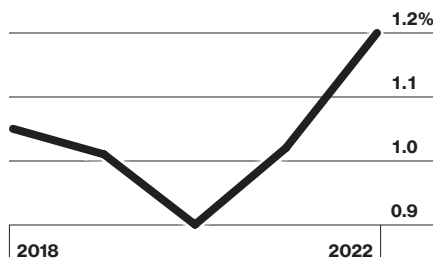
The devastating wildfires in Los Angeles are out, but a pervasive unease is still roiling California. Insurance policyholders from San Diego to Crescent City are bracing for impact over the \$75 billion in estimated insured losses from the Palisades and Eaton fires, the costliest in modern US history.

Already, State Farm, California's largest insurer, has requested the state's insurance commissioner approve an emergency rate increase averaging 22% for all homeowners, having paid out \$1 billion in claims from the fires so far. The FAIR Plan, California's insurer of last resort for those dropped by private carriers, is strapped for cash: It had about \$377 million on hand to cover claims as of Jan. 6, a fraction of the \$4 billion in exposure it faces in Pacific Palisades alone, where the number of FAIR Plan policies jumped 85% from 2023 to 2024. Rate hikes are likely coming for everyone in California, on top of already substantial increases tied to new regulations approved last year to stop insurers from fleeing the market.

Even so, carriers will probably keep dropping customers, as mounting climate disasters deepen their losses, says Dave Jones, California's former insurance commissioner and director of the Climate Risk Initiative at the University of California at Berkeley's Center for Law, Energy & the Environment. The dry, windy conditions that contribute to catastrophic fires such as the ones that started in early January are made 35% more likely by climate change, according to researchers at World Weather Attribution, an academic coalition ►

Losing Coverage

US home insurance nonrenewal rate



◀ that studies extreme events. “The increase in background risks, because of the failure to transition from fossil fuels, is outrunning rate increases,” Jones says. “We’re marching toward an uninsurable future throughout the United States and throughout the globe.”

Florida, where warmer oceans are increasing the frequency of major hurricanes, supports his point. Although lawmakers in Tallahassee began deregulating the property insurance market in the early 2000s, national insurers have steadily exited, landing the majority of policyholders on a state-sponsored plan with average annual premiums of \$3,300, up 61% since 2016. No wonder about 1 in 6 Florida homeowners—and even more in pricey Miami-Dade County—lack coverage entirely. (That’s almost twice the estimated rate for California.)

In other words, individuals and families are left holding the bill for climate change. That injustice is greatest for the world’s poor, who are generally the smallest consumers of planet-warming fossil fuels and least able to absorb the costs of climate disasters. But there are knock-on effects for local economies if victims are unable to recover. When residents leave or go into default, “revenues go down for the community,” says Alice Hill, a senior fellow for energy and the environment at the Council on Foreign Relations. From schools to trash collection, “a variety of public services just go down because there’s no money to pay for them.”

Now an insurance crisis threatens communities all over the world. There are no universal answers, but Jones and other environmental risk experts say

companies and governments can do more to provide protection.

One possible solution is to increase access to what’s known as parametric insurance. It’s a model that seems especially promising for property owners who can’t afford other forms of coverage. Traditionally, homeowners insurance calculates a payout based on the severity of damage after an event occurs. With parametric insurance, both parties agree in advance on the amount the insurer will pay when a specific event occurs, such as a windstorm that reaches a certain speed or a flood that reaches a certain depth. The payout is immediate, which can be an important benefit for policyholders of limited means.

Such policies are already in use by farmers in Colombia, Ghana and other countries, and a couple of programs in the US are testing parametric coverage for entire communities. In 2023, New York officials worked with a group of nonprofits and insurance companies to purchase about \$1 million in parametric flood coverage for lower-income residents across the city. Under the policy, covered individuals will immediately receive payouts of as much as \$15,000 if a certain amount of rain falls, reducing the burden of recovery for those residents. “It’s not to eliminate the risk entirely,” says Daniel Kaniewski, managing director, public sector at Marsh McLennan, a risk management company that helped broker the program. “It’s to address the level of risk that concerns local officials.”

The New York pilot is in its second year, and though there hasn’t been a qualifying storm to test its effectiveness, insurance experts are watching closely to see how well it will help residents bounce back when one arrives. Jones, the former insurance commissioner in California, is working with the nonprofit Nature Conservancy to design a parametric product that would cover wildfires but would be priced to account for a community’s removal of flammable vegetation, which is shown to reduce property risk. Insurers in California are supposed to give discounts for such precautions, but they don’t always.

Governments across the globe are working to spread risk more evenly as the costs of disasters rise. As of Jan. 1, Italy requires all businesses to purchase disaster insurance. In France, rates have gone up for all policyholders for government-mandated disaster coverage. Last year in the US, then-Representative Adam Schiff of California (now a senator) introduced a bill proposing a reinsurance program backed by the Department of the Treasury that would reduce rates for homeowners. It didn’t pass, but Hill says the federal government has a stake in ensuring access to insurance. “It’s definitely a risk to our economic security if it becomes unavailable on a widespread basis,” she says.

Jones argues that lawmakers also have a role to play in holding the insurance industry to account for its other profit stream: investment earnings. A recent study by the nonprofit Ceres found that US insurers had more than half a trillion dollars backing fossil fuel companies as of 2019, which could bolster returns in the short term but make their business untenable in the long term. “Why are US insurers allowed to invest in the industry whose emissions are the main driver of the existential threat to the insurance industry’s ability to write home and business insurance?” Jones asks. “Makes no sense.” **B**

Women Keep Ukraine in Gear

● By Kateryna Chursina

Tetiana Ustymenko’s family has worked in the coal mines of eastern Ukraine for generations, and as a girl she longed to carry on the tradition. But when she grew up, she discovered women weren’t welcome “deep below the heart of the planet,” as she describes the mines. Yet for more than two years, Ustymenko has spent untold hours piloting a small train along miles of tunnels, transporting miners and materials to subterranean worksites. She has Russian

PHOTOS: PREVIOUS SPREAD, WILLEM VERBECK; THIS SPREAD, PHOTOGRAPHS BY OLSANA PARAFENIUK FOR BLOOMBERG BUSINESSWEEK ■ DATA: US DEPARTMENT OF THE TREASURY



Povshedna (left), whose husband has been in the army since the war began, and Lysenko, who's a long-haul driver transporting flowers from countries farther west

President Vladimir Putin to thank for the opportunity. "It's good that women are being given a chance to prove themselves," Ustymenko says. "It's just a pity that it's the war that got us here."

Soon after Russian troops surged across Ukraine's border three years ago, more than 15% of the men working at the mine were mobilized. With most other big employers in the country facing a similar labor crunch, the management began seeking women to fill some posts at the mine, about 60 miles west of today's front line. Roughly 140 women now work underground in what the company considers less strenuous positions.

The same is happening all across Ukraine, with women stepping into roles they've traditionally been barred from having. That's a big change in a country where, as recently as 2017, employers were forbidden from hiring women for about 450 job categories deemed to "threaten health and fertility," with some restrictions continuing until the outbreak of war in 2022. As happened in the UK and the US during the world wars, Ukraine is experiencing its "Rosie the Riveter" moment. "I always have work to do," says Lyubov Povshedna, a farmer near Kyiv whose husband has been in the army since fighting began. "I'm keeping all this afloat, waiting for the boys to come back."

To bolster the trend and help it outlast the conflict, Ukraine's Ministry of Economy is working with the United

Nations on a program called Sure You Can to provide women with training and steer them to new jobs. As the country seeks to wean itself from fossil fuels and decentralize power generation amid continued Russian attacks on the grid, Greenpeace is training women as solar panel installers. And a Swedish nonprofit called Reskilling Ukraine is providing free education for women and war veterans to help them start new careers.

Companies are stepping up, too, with the biggest steelmaker, PJSC ArcelorMittal Kryvyi Rih, posting ads declaring "Girls Rule Here," seeking to bring women into its mills. Supermarket chain Silpo is hiring women as security guards and meat-packers—jobs that were typically reserved for men. And state oil company Ukrnafta is providing women with training to fill managerial and technical positions. "The goal is to give women opportunities and to change outdated stereotypes and prejudices," says Ukrnafta human resources chief Olena Artazei.

Yevhenia Lysenko last summer joined an initiative sponsored by truckmaker Scania CV AB to train long-haul drivers, and soon she'll start going to western Europe to fetch loads of flowers for a Kyiv florist. "Just give us the opportunity to work and don't buy into the fears that we can't do it," she says. The Scania program "was like hitting the jackpot," she says, before adding, ruefully, "though it's probably thanks to the war."

Ukraine's situation differs in one significant way from that of the US and the UK in the wars of the 20th century: Almost 2 million women have fled the fighting and now live in Poland, Germany, Britain and beyond. Although some have trickled back, others are still leaving, so the shift in the labor force has faced some limits. What's important is ensuring that women who leave will want to return once the war ends, says Sabine Freizer Gunes, the representative in Ukraine for a UN agency that focuses on gender equality issues. "Recovery will be a tremendous opportunity," she says. "The economy will be very dynamic, and hopefully this will serve as a pull factor for refugees."

That will require more than just job training, Gunes says. Equally important will be preschools—Lysenko, for instance, says with no one to look after her young son, she can't drive longer, international routes—and care for elderly parents in multigenerational households. And as in many countries, there's a significant wage gap, with the median salary for women almost 19% less than what it is for men, though the government says it aims to narrow that to 14% by 2030. "There are obstacles," she says. "Women still fear discrimination."

It's unclear whether women's gains in the labor market will be sustainable once the fighting ends. (Generations ago, in the UK and the US, they certainly weren't.) The legislative changes from 2017 helped crack the door—and the war has flung ►

◀ it wide open—but the perception of women as the weaker sex persists, says Volodymyr Landa of the Center for Economic Strategy, a think tank in Kyiv. “Overcoming the psychological barriers,” he says, “may take decades.”

There’s one tragic statistic that points to a continuation of the gains: Hundreds of thousands of Ukrainian men have been killed or wounded in the conflict, so the country’s factories, farms and offices will probably continue to need as many women as they can find. Anna Derevyanko, head of the European Business Association, a lobbying group in Ukraine, says she expects the trend to last, particularly if the war drags on. “Companies will get used to hiring women,” Derevyanko says. “And this will likely continue, because their businesses are getting more efficient with women on the job.” **B** —*With Bloomberg Originals*

How 7-Eleven Was Perfected in Japan

● By Kanoko Matsuyama

The shop is well lit; the floor, pristine. The welcoming aroma of freshly fried chicken and steamed pork buns wafts through the air. Customers pop in to snag on-the-go comfort foods such as savory onigiri and creamy egg salad on squishy white bread. It’s a scene that plays out hundreds of times a day at more than 21,000 7-Eleven locations across Japan, where the convenience stores inspire almost cultlike loyalty.

The first big milestones for 7-Eleven were all in the US: first location (1927, Texas), first Slurpee (1965), first self-serve fuel pumps (1970). But cracking the Japanese market toward the end of the 20th century elevated the chain’s global reputation beyond a speedy if uninspired purveyor of lottery tickets, gasoline and Big Gulps.

So far, owner Seven & i Holdings Co. hasn’t been able to replicate that success at its 13,000 US and Canadian stores, better known for their constantly rolling

hot dogs and 30-ounce soft drinks than their fresh food or their ability to inspire effusive posts from social media influencers. The Tokyo-based company, which has been closing underperforming North American stores faster than it’s been opening new ones, is now the target of a \$47 billion takeover bid by a Canadian rival that says it can do a better job translating that overseas magic to the market.

There’s “a pretty big gap” between the 7-Eleven locations in Japan and the North American ones when it comes to food offerings, says Lea El-Hage, a consumer analyst at Bloomberg Intelligence.

To be sure, Seven & i’s chief executive officer, Ryuichi Isaka, has made some changes around the edges in the US. He’s tapped the retailer’s main supplier, Warabeya Nichiyo Holdings Co., to stock its American shelves with more fresh food and hot meals. The chain, whose model is mostly franchises, is also promoting more specialty coffees, like flavored cold brews. The wider assortment of fresher food products—something expected to appeal to US consumers more than processed foods do—is in 5,000 of the stores already, with 2,500 more expected in the first quarter, executives said in January. Its 2021 purchase of the Speedway gas station chain for \$21 billion helped Seven & i secure the biggest portion of a still highly fragmented US convenience store market. In the US, where Seven & i gets about half of its profits, monthly in-store sales rose modestly in November for the first time in 14 months.

But investors aren’t convinced the changes are coming fast enough, especially because Isaka has had nine years in a global leadership role to turn things around. So as Seven & i’s shares languished near 33-month lows last summer, Alimentation Couche-Tard Inc. in Quebec made its move. Founder Alain Bouchard, who built a \$50 billion global gasoline station and convenience store operation from scratch that’s led today by the Circle K brand, has been dreaming of buying the Japanese retailer for years.

Fearing that Seven & i might slip out of Japanese hands, the company’s founding Ito family countered with its own buyout bid, the details of which are still being

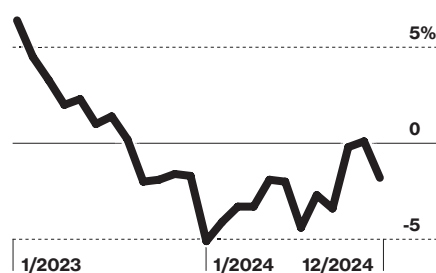
finalized. Patriarch Masatoshi Ito, who passed away in March 2023, transformed a single family-owned storefront into a one-stop shopping-center concept called Ito-Yokado that took off during Japan’s economic boom years. He and a younger colleague, Toshifumi Suzuki, later brought 7-Eleven and Denny’s restaurants to the archipelago and built a sprawling retail empire that also includes home-goods store Loft and Japan’s Tower Records, which disappeared from US streets almost two decades ago. The conglomerate renamed itself Seven & i in 2005 after buying all outstanding shares of Texas-based 7-Eleven Inc. The family members, who jointly own 8.1% of Seven & i, have proposed partnering with Itochu Corp., which operates rival Japanese convenience store chain FamilyMart, raising questions over future competition in a market where the population is shrinking.

A takeover by either party would mark the biggest buyout of a Japanese company and, possibly, a harbinger of bigger change for a country better known for doing big mergers and acquisitions rather than being the target of them. So far, Seven & i’s directors have shared preciously little about their thinking on the offers. Still, there’s a looming deadline of sorts, with the Ito family-backed buyout proposal likely to become a formal offer before the retailer’s annual shareholders meeting in May.

Couche-Tard, owner of 16,800 convenience stores in 31 countries or territories, agrees with current management that fresh food is the key to unlocking the company’s value. When Bouchard visited Japan in October, he trekked to 7-Elevens several times every day to sample the fare and to pick up his favorite octopus dish.

7-Eleven’s US Slump

Merchandise sales, year-over-year change



Suffice it to say that the public would be skeptical of any octopus being sold at 7-Eleven locations in the US.

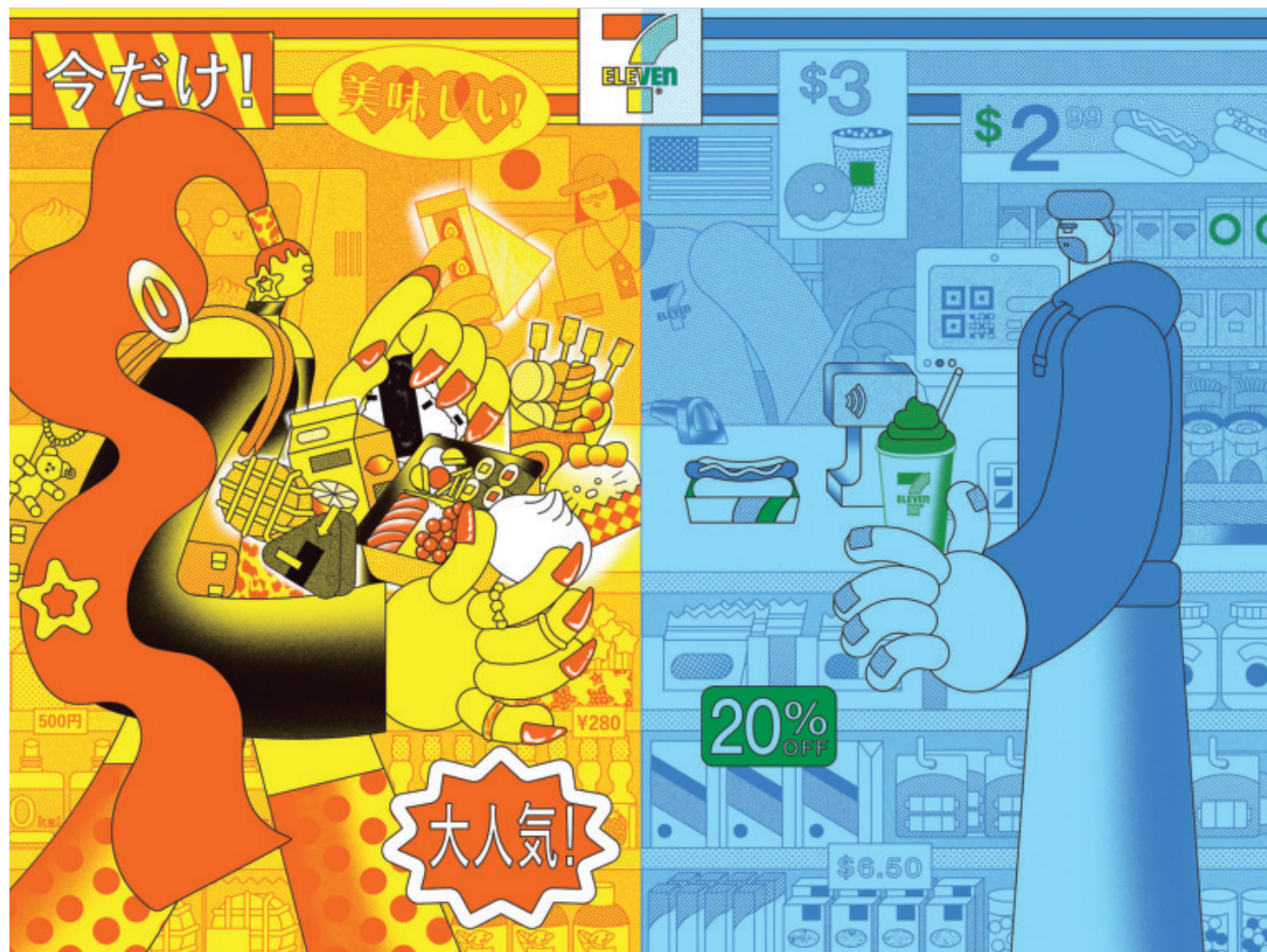
Couche-Tard and Seven & i declined to provide additional comment, citing earlier statements on the process.

The chief challenge for any owner, says Euromonitor International Ltd. analyst Leah Boston, is changing a deeply entrenched perception that prepared food at US convenience stores is mainly

each store responsible for analyzing the sales of every product and adjusting orders to reduce waste and control inventory. It's a management method known as *tanpin kanri*, which was even taken up as a Harvard Business School case study. "Japan's convenience stores' food preparation central kitchens and logistics infrastructure would be more challenging to establish and operate efficiently over vast areas in the US," Boston says.

utility bills, send parcels, do their banking and print out official records. In times of national disasters, 7-Elevens team up with local governments and become relief centers and provide supplies.

Outside of the competing bids, there's a less dramatic third option: The management and shareholders could reject the offers, says Lorraine Tan, an equities analyst at Morningstar Asia Ltd. That would give current management an



"unhealthy and largely unflavorful" and sold at marked-up prices. In a sprawling market such as the US, though, that's a big challenge, she says.

In Japan, which is much smaller, the chain relies on a robust supplier network, where inventory and food preparation take place at more than 150 factories churning out breakfast, lunch and dinner. Product lineups and displays change quickly based on consumer tastes, with

Staying on top of picky consumer preferences is paramount in a country known for its gastronomy. Popular Japanese television programs regularly feature top sushi, pastry and restaurant chefs to judge the latest products developed by 7-Eleven, FamilyMart and Lawson, the country's three big convenience store chains.

The success of 7-Elevens in Japan also hinges on their role as a neighborhood hub, where customers can pay their

opportunity to continue the turnaround efforts, though shareholders who've already waited for years for meaningful improvements might be out of patience.

"This could take some time to achieve in light of inflationary pressures," Tan says. For the company to reject both bids, "that means Seven & i has to have confidence that it can improve profitability and cut costs to lift margins faster than what I assume." **B**

● The Right Stuff

● By the Pursuits editors

The gear and gadgets to get you ready for spring



The waist adjusts for a snugger fit

▲ Gallic Gardening

After Alan Calpe and Christopher Crawford bought a home in upstate New York, they so fell in love with planting and pruning that they started a brand, Gardenheir, dedicated to heartily handsome togs for horticultural pursuits. This spring they've joined with French workwear brand Le Laboureur on a pair of hardworking unisex overalls in 10-ounce cotton drill (\$138). Wear them in the garden or just browsing at the farmers market.

▼ Very Stylish Stompers

Italian fashion house Fendi and Minnesota's Red Wing Shoe Co. are both reaching milestones this year, turning 100 and 120 years old, respectively. To celebrate, they've teamed up on a \$1,450 reimagining of Red Wings' Classic Moc womens' boots. Available in sienna red or natural beige, they feature Fendi's interlaced "FF" logo, hand-stitched into the boots' Cuio Romano leather uppers in Tuscany. Goodyear-constructed soles are then added in the US.



▼ A TV Tray for Thrilling Nights

Everyone is buzzing about the new season of *The White Lotus*, including...CB2? An HBO partnership with the home furnishing emporium includes everything from bone china to pillows. The \$70 wooden drinks tray will make the perfect conversation piece for your viewing parties.



▼ Fragrances To Moon Over

Feel-good lifestyle brand Sage & Salt is known for its luxury offerings to the posh, witchy set: Think ethical crystals, evil-eye charms for your Birkin and room sprays to contend with Mercury in retrograde. Two new concoctions (\$195 for 60 milliliters each) are designed to be worn based on the phase of the moon. When it nears full, Luna Absolute offers calming Italian bergamot, Bulgarian rose, amber, oud and vetiver. As it wanes, Moon Ring invigorates with green fig, orange blossom, jasmine and tobacco leaf.



The cowl-style collar has thick drawstrings for max protection



◀ Rain as Runway

Stockholm-based Stutterheim is so firmly entrenched in the fashion firmament that its chic raincoats have appeared in *Vogue* and *GQ*. The Chatham matte calf-length coat (\$400) is both light and flowy—with a V-shaped front and lidded side pockets that make it as stylish as it is utilitarian.

▶ A Colorful Cone Of Sound

The Beosound 2 wireless speaker from Bang & Olufsen has long been a favorite of design-minded audiophiles, as much for its full-spectrum sound as for its uncommon form factor: a sleekly understated aluminum-clad cone. The new \$5,700 Gradient Collection comes in 10 Technicolor ombre options.



▼ Keep Time on the Track

In February, the F.A.T. Ice Race took over Austria's Lake Zell, with souped-up Porsches and Audis skidding across the snowy track—sometimes with skiers in tow. "F.A.T." stands for Francais Allemande Transite, a defunct logistics company that used to sponsor races across Europe in the '80s and '90s. The name was reinvigorated by Ferdi Porsche, great-grandson of Porsche AG founder Ferdinand, who brought the ice races back in 2019. In honor of this tradition, Porsche Design created an \$11,500 limited-edition version of its Chronograph 1 with a white, fully luminescent dial. It comes with a titanium bracelet or extra-long strap that can be worn outside your jacket.



▶ Armor Against The Elements

Technical outerwear brand Nobis makes slickers that are supremely suited for battle against spring's surprises. The \$795 Wylder performance rain jacket is made with three-ply micro denier fabric and features mesh ventilation in the back, elastic cuffs and handy pockets on the inside.



▶ Spring Is for Sprouting

Row 7 Seed Co., co-founded by Dan Barber, chef of farm-to-table heavyweight Blue Hill, offers a tight lineup of vegetables and legumes bred for the kind of punch and prettiness on the plate that diners demand. Try its flagship Badger Flame beets, meant to deliver the "vegetal sweetness" without "the polarizing earthiness," or wavy purple Beauregarde snow peas (packets from \$4.65).



■ PHOTOS: COURTESY COMPANIES

A man with glasses and a beard, wearing a light-colored blazer over a dark shirt, sits at a wooden desk in a study. He is looking down at a book or document. The desk is cluttered with books, papers, a lamp, and a small bowl. Behind him is a large bookshelf filled with books. To the right, there are yellow curtains and a window looking out onto greenery. A vertical red line separates the left and right sides of the image.

When's the best
time to trust
your instincts?

When our
insights help
back them up.

Advice is our craft.

Hunches are just hunches.

But to help you make informed investment decisions, we'll put our insights at your fingertips. With our meticulous research and global presence, you'll get advanced analysis from all markets, industries and asset classes.

Learn more



UBS

UBS Financial Services Inc. is a subsidiary of UBS Group AG. Member FINRA/SIPC.
© UBS 2025. All rights reserved.

Culling the Startup Herd

● By Katie Roof

As hard as it is to remember, there were buzzy startups in Silicon Valley before the tech world became solely fixated on artificial intelligence. By the time the Covid-era tech boom crested in 2021, well over 1,000 venture-capital-backed startups had reached valuations of more than \$1 billion, including fake meat purveyor Impossible Foods Inc., home maintenance marketplace Thumbtack and online-class platform MasterClass. Then came a squeeze sparked by rising interest rates, a slowing initial public offering market and the feeling that any startup not focused on AI was yesterday's news.

A reckoning that's been looming for years has become painfully tangible. In 2021 more than 354 companies received billion-dollar valuations, thus achieving

unicorn status. Only six of them have since held IPOs, says Ilya Strebulaev, a professor at the Stanford Graduate School of Business. Four others have gone public through SPACs, and another 10 have been acquired, several for less than \$1 billion. Others, such as the indoor-farming company Bowery Farming and AI health-care startup Forward Health, have gone under. Convoy, a freight business valued at \$3.8 billion in 2022, collapsed the following year; the supply chain startup Flexport bought its assets for scraps. Some startups feel like the "rug has been pulled out from under them," says Sam Angus, a partner at the law firm Fenwick & West. "The fundraising reality has shifted."

Welcome to the era of the zombie unicorn. A record 1,200 venture-backed unicorns have yet to go public or get acquired, according to CB Insights, a researcher that tracks the venture capital industry. Startups that raised large sums of money are beginning to take desperate measures. Those in later stages are in

a particularly difficult position, because they generally need more money to operate—and the investors who'd write checks at billion-dollar-plus valuations have gotten more selective. For some, accepting unfavorable fundraising terms or selling at a steep discount are the only ways to avoid collapsing completely, leaving behind nothing but a unicorn corpse.

The startup boom grew from the era of historically low interest rates following the 2008 financial crisis. Facing low returns elsewhere, institutional investors poured money into venture firms that pitched themselves on the ability to identify the next transformative tech startup. For young companies that convinced VCs they fit that bill, money was easy to come by.

The fundraising market for startups began to sour in 2022 when, among other things, the Federal Reserve raised interest rates seven times. The rate increases led to cost-cutting and industrywide layoffs, a trend that peaked in the first quarter of 2023, according to data provider ►



■ ILLUSTRATION BY SOPHIE GULLBRANTS

At Morgan Stanley, we may seem like a contradiction — and we are.

At 89 years old, we see the world with the wonder of new eyes, helping you see untapped possibilities and relentlessly working with you to make them real.

We partner with you to unlock new ideas, to create new legacies, to research, innovate, and collaborate to transform a company, an industry, a generation.

Because grit and vision working in lockstep puts you on the path to your full potential.

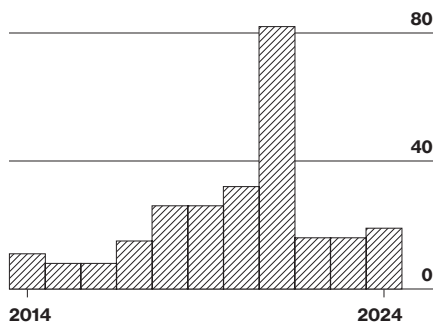
morganstanley.com/whyus



OLD SCHOOL GRIT / NEW WORLD IDEAS

After the Boom

Number of unicorns going public via IPO annually



◀ Statista. Some companies that had been focused on growth shifted their goal to near-term profitability to reduce their reliance on venture capital.

Many startups, though, were built to chase growth with little concern for near-term profitability in their early years, assuming they could continue fundraising at increasing valuations. In many cases, that formula no longer works. Fewer than 30% of the unicorns from 2021 have raised financing in the past three years, according to data provided by Carta Inc., a financial technology company working with startups. Of those, almost half have done so-called down rounds, where investors value their companies at lower levels than they'd received in the past.

Cameo, a service that offers celebrity video greetings, once had a valuation of \$1 billion, but it raised money last year at a 90% discount, according to a person familiar with the matter who asked not to be named when discussing confidential information. Financial tech company Ramp has raised two sizable rounds since early 2022 at valuations below the \$8 billion it got three years ago.

In the best-case scenarios, startups can use capital from down rounds to recover their footing. Contractor software business ServiceTitan Inc., for example, raised money on unfavorable financial terms in 2022, only to exceed that value when it went public in 2024. It now has a market cap of \$9.4 billion, in line with its peak private valuation of \$9.5 billion in 2021.

But job cuts and down rounds can also kick off a vicious cycle. Startups generally sell investors on stories of

momentum, but that's harder to do once they've traded ambition for fiscal discipline. For employees, a major upside of a startup gig is the chance to earn equity; once a company's value starts dropping, workers with other options tend to start leaving.

Startups are taking a range of steps to adjust to their circumstances. Those that are in decent shape can opt to classify new fundraising as a continuation of a previous funding round, sidestepping the uncomfortable reality that their valuation is not growing. Given the environment, such flat rounds are widely seen as a success.

Other startups have to take deals that are unfavorable in ways that extend beyond a lower valuation. This can mean changes to ownership structure, including deals requiring previous investors to participate or lose their ownership stake. These so-called pay-to-play deals can be unpopular for those being forced to re-up, for obvious reasons; last year Ryan Breslow, co-founder of payments startup Bolt, attempted to raise this type of financing round but was thwarted by objections from large shareholders.

Doubling down on a company with dwindling prospects is, of course, often a bad bet. The digital pharmacy Truepill was acquired after a pay-to-play round, but for only about a third of its value in 2021, according to PitchBook Data. Some investors regard deals with such bad terms as a sign it's time to move on. "If the company has to go through one of these, it's probably toast anyway," says Jeff Clavier, founder and managing partner at Uncork Capital.

Deep-pocketed investment companies, including private equity firms, may buy some of these slow-growing startups. But businesses are simply "not going to fetch the type of valuations investors were giving them back in 2021," says Chelsea Stoner, general partner at Battery Ventures, which invests in and acquires startups.

The remaining optimists can hope that something will spark a new round of techno-enthusiasm, or that a Lina Khan-less Trump administration will goose the acquisition and IPO markets. But Greg Martin, founder and managing director

at Archer Venture Capital, says that for many unicorns the only—albeit unlikely—hope is for the market to go crazy again. "Unless we have another irrational valuation environment created by zero interest rates" like we had in the pandemic, he says, many of these zombie unicorns are "going to wind up in the graveyard." **B**

Can OJ Rejoin the Breakfast Table?

● By Ilana Peng and Jill R. Shah

After years on the sidelines, eggs have brushed off high-cholesterol fears as Americans seek out more protein. Butter, for decades passed over for margarine, is back on the US breakfast table, too. Even cottage cheese, that chunky, polarizing epitome of old-school diet culture, is once more in the fridge.

Orange juice is still waiting for its comeback.

Consumption of OJ in the US—by far the beverage's biggest market—has more than halved since peaking in the late 1990s. Demand hit an all-time low in 2024, and this year won't be any better, US Department of Agriculture data show. With today's ever-shifting diets—protein's in! red dye's out!—any food can fall out of fashion. But orange juice's attempted climb back to relevance has been particularly challenging.

Some modern shoppers are skeptical of the beverage's nutritional benefits, especially because they can inadvertently drink several fruits' worth of sugar in just one glass. OJ is also getting slammed by inflation because of Florida's worsening hurricanes and crop disease that have pummeled recent harvests. Frozen concentrate averaged a record \$4.24 per pound in the US last year, almost 30% more than the year before, according to US Bureau of Labor Statistics data. Suppliers are feeling the squeeze, with more farmers ripping up their groves and selling their prime Florida real estate to condo developers instead. ▶

■ DATA: CB INSIGHTS



STAND UP TO YOUR MONSTER TO-DO LIST? ☒

SAVE MONEY? ☒

Small business owners' to-do lists can add up. So see if you can save money on a commercial auto quote at **ProgressiveCommercial.com**.

PROGRESSIVE
COMMERCIAL



Get a quote online in
as little as 7 minutes

◀ Juice makers are trying to get back into people's refrigerators by spending more on marketing and rolling out a steady stream of products. Tropicana, the biggest OJ brand in the US, reintroduced its stevia-sweetened Tropicana Light (formerly Trop50) line in 2023 to appeal to carb-conscious buyers. And it plans to start selling a blended orange juice in March: a lower-cost mix of orange, apple and pear juice—plus water—dubbed Tropicana Essentials. The new offering will be 80% juice, contain no added sugar and sell for \$3.89 for 46 ounces, compared with \$4.69 for its Pure Premium line of 100% orange juice.

"All the research we're focused against is delivering that taste of fresh orange that explodes on your tongue and delivering that mouthfeel that people love about orange juice, as well the right texture," says Tina Lambert, chief marketing officer at Tropicana Brands Group, which took only nine months to bring Essentials from idea to shelf. "That's what the R&D team has done."

At Coca-Cola Co., the Minute Maid brand has expanded beyond traditional juices into bright aguas frescas and fruity wine cocktails. The company's juice brands sit in the same division as its Fairlife milk beverages, opening the door to other possibilities, too. "Are there places where juice and dairy could potentially come together—like, is that an interesting space for innovation?" Becca Kerr, head of Coca-Cola's nutrition unit, said in an interview this past summer. Coca-Cola declined to comment further.

For years, OJ innovation was just around the edges—pulp or no pulp, added calcium, 100% juice or not. But today's shoppers want more from their beverages. They're increasingly gravitating toward foods that offer extra benefits beyond refreshment, such as caffeine, electrolytes, nutrients or protein, and many are willing to pay a premium for health.

Independent juice maker Uncle Matt's Organic has been leaning into that consumer search for so-called functional ingredients. During the Covid-19 pandemic, it introduced an "Ultimate Immune" orange juice infused with elderberry, vitamin D and zinc that ►





◀ still has an annual sales spike each year around cold and flu season, says founder Matt McLean. Another OJ-based drink from its lineup includes turmeric and probiotics to help with digestion. The pandemic-era increase in demand has held for the company's products, even as the retail price for a 52-ounce bottle has jumped from \$6 four years ago to as high as \$10 now, McLean says.

At the other end of the price spectrum, shoppers can—and do—still buy frozen cylinders of the concentrated stuff, which first brought orange juice to the masses in the years following World War II. Demand for OJ picked up through the second half of the 20th century thanks to heavy marketing, including a national campaign featuring Bing Crosby, a sponsorship with Mickey Mantle and a Florida OJ-tasting pavilion with live porpoises at the 1964 New York World's Fair. The proliferation of not-from-concentrate juices in the 1990s and early 2000s only added to the appeal. Demand grew and grew until US households were drinking 1.1 million metric tons of OJ a year at its peak in 1998.

But then nutritionists started sounding the alarm: Juicing fruits, instead of eating them whole, removes fiber that helps slow the absorption of sugar into the bloodstream. The American Academy of Pediatrics now says 6 ounces of 100% fruit juice should be the maximum for kids under 7, with none recommended for infants. That's a big turnaround from the previous decades, when some parents used to send kids to cribs suckling on a bottle of juice. Orange juice made a brief comeback during the first year of Covid, when shoppers looking for any way to ward off the virus turned to it



A postcard of a Minute Maid plant in Florida, circa 1950s

for its immune-boosting vitamin C. Unit sales of refrigerated orange juice jumped about 15% from 2019 to 2020, data from researcher Circana show. But since then, sales of the juice, which has been unable to shake off its sugary reputation, have been steadily down.

Tropicana has developed a “myth-busting” campaign using online influencers to reassure consumers that its Pure Premium line doesn't have any added sugar. It faces pressure on other fronts, too: S&P Global Ratings recently downgraded the company's credit rating to CCC, citing a continued decline in profitability, persistent cash burn and a heightened risk of a default or debt restructuring over the next year. Tropicana Brands Group is majority owned by private equity firm PAI Partners, with former owner PepsiCo Inc. retaining the rest.

Another possible blow to the industry: President Donald Trump's trade disputes with the US's closest neighbors. Canada, by far the biggest destination for US orange juice exports, targeted the beverage in its retaliation plan after the US administration floated 25% tariffs on the country—threatening the more than \$100 million in orange juice that flows north of the border every year. Orange juice from Mexico, which helps fill gaps in US production, would cost

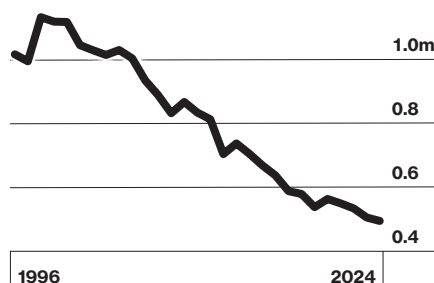
more if the new tariffs take effect, too.

Even if the industry succeeds in its efforts to stoke demand with new products, brand refreshes and internet gimmicks, it still has one more major problem to solve: getting enough oranges in the first place. Farmers have been fighting a tree-killing citrus disease called greening in both the US and Brazil for years, with little luck. Florida, the top OJ-making state, is expected to produce only 12 million boxes of its state fruit this year, the fewest since 1930. That keeps grocery store juice prices high for consumers who aren't sure they even want to buy the stuff in the first place.

This past fall, it appeared the orange supply could be turning a corner. Breakthroughs with antibiotics and tree breeding were looking promising at the same time Florida's groves were recovering from Hurricane Ian two years prior and Irma five years before that. But Hurricane Milton's brash arrival in October was one punch too many for some growers. As the storm slammed the state, branches snapped off trees; oranges littered the ground, still unripe and unsalvageable. About three months later, Tropicana supplier Alico Inc. announced it would exit the citrus business and would use the land instead for other types of farming or real estate development.

Shrinking Demand for OJ

US consumption, in metric tons



PREVIOUS SPREAD: PHOTO ILLUSTRATION BY KELLY VAN PATTEN. STICKER ILLUSTRATIONS BY LAUREN MARTIN. THIS PAGE: STATE ARCHIVES OF FLORIDA. DATA: US DEPARTMENT OF AGRICULTURE, WORLD BANK. DATA IS FOR EACH YEAR'S HARVEST AND MARKETING PERIOD.

“We’ve never skimped on any of the caretaking costs. Our trees always got the best that we could possibly provide for them, and unfortunately, production continues to decline,” says Alico Chief Executive Officer John Kiernan. “We are disappointed, because we’ve tried everything available to us to sustain our success in citrus.” **E**
—With Brett Pulley

Why Currency Trading Is Cool Again

● By Alice Atkins

In the decade Tim Brooks has been buying and selling currencies, he’s grown accustomed to the feeling that most of the action is elsewhere. He and his team at Optiver Holding BV, a top trading firm in London, rely on volatility to generate quick profits from sudden moves in exchange rates. But dramatic swings largely evaporated after the global financial crisis of 2008, when the biggest central banks began cutting and then raising interest rates more or less synchronously. Occasional bursts of excitement notwithstanding—such as last year’s surge in the Japanese yen following a surprise interest-rate hike—currency trading ceded the spotlight to the stock and bond desks.

That changed after Donald Trump was reelected US president on pledges to shake up global trade. The Canadian dollar and the euro suddenly started gyrating with each trade threat, slumping when it seemed penalties were imminent and rallying when Trump announced a reprieve. And as the dollar has strengthened, the Federal Reserve has decoupled from other central banks, signaling it will keep rates steady even as others continue cutting.

With his firm’s average daily foreign exchange volumes doubling from 2014 levels, Brooks has found himself at the beating heart of the trading floor. A few months ago, Optiver switched to round-the-clock operations to meet rising

demand. One trader was relocated to Singapore to start currency trading there, and another was moved from the commodities desk to Brooks’ foreign exchange team. “During most of my career, FX has been the asset class with the lowest volatility and the least interest from investors,” says Brooks, who joined Optiver as a trainee and today oversees foreign exchange options trading. “Now there’s more potential for price movement—and a lot more interest coming in.”

The renewed enthusiasm at Optiver is being echoed throughout the financial sector. Wells Fargo hired foreign exchange veteran Enrique Payan from Deutsche Bank in January to head up an enlarged currency options team, and Citigroup has bolstered its currency derivatives desks in London and Singapore, poaching traders from Barclays.

January was the busiest month for currency options trading since February 2020, according to exchange operator CME Group Inc., with daily volumes 75% higher than early last year. Analytics provider Coalition Greenwich forecasts two consecutive years of revenue growth for bank trading in the currencies of developed economies, even as it expects declines for teams working with sovereign bonds and commodities. “FX has been a sleeping giant, but we’re emphasizing it in portfolios, because we think it can add value,” says Fredrik Repton of asset manager Neuberger Berman Group LLC.

The return of volatility in the \$7.5 trillion-a-day foreign exchange market has rekindled interest from hedge funds, with activity in some Asian currencies soaring to a record since the US election, according to Citigroup Inc. Although the number of funds focused entirely on currency trading plunged in the era of ultralow interest rates, the few remaining have seen an influx of cash, data tracker BarclayHedge reports. The job reached “peak sexiness” during the global financial crisis, says Kevin Rodgers, who ran Deutsche Bank AG’s global currency desk until 2014 and now works as an independent consultant. “That was a sweet spot in terms of having credibility on the trading floor.”

Staffing on currency desks has been severely depleted in recent years, with many traders replaced by algorithms that can easily beat humans. Those still on the job tend to be younger, because banks often fired expensive veterans while holding on to a few junior staffers to keep the lights on. But banks are again hiring currency traders. “This feels like going back to the ’90s,” says Lauren van Biljon, a portfolio manager at Allspring Global Investments. “You’ve got a whole generation of traders who haven’t experienced volatility.”

Given Trump’s constant shifts in policy, it’s too early to say whether the jump in volumes marks a long-term revival. But recruitment in the field is picking up, particularly for people who worked on trading desks during the 2008 crash, when volatility skyrocketed, says Adam Gazzoli, co-founder of Adamis Principle Ltd., a recruitment company in London. “Banks are looking to hire,” he says. “A lot are short of that human element with gray hair and 20-plus years of experience.” **E** —With Greg Ritchie and Vassilis Karamanis

Chatbot Arena Knew DeepSeek Was Coming

● By Rachel Metz

For most of the world, DeepSeek seemed to explode out of nowhere in January with open-source artificial intelligence software that rivaled models from OpenAI and Google—all of it built, purportedly, at a fraction of the cost of competitors’ models. For fans of a website called Chatbot Arena, however, it was a bit of an eye-roll moment: They’d been watching—and rating—the progression of models from the Chinese company behind DeepSeek for months.

Created in early 2023 as a research project by the University of California at Berkeley’s Sky Computing Lab, the site lets visitors try out chatbots powered by a slew of AI models and vote on how ►

◀ they perform. An “independent third party with the incentive of truthfully measuring progress in the AI space will be critical,” says Wei-Lin Chiang, a leader of Chatbot Arena and a postdoctoral researcher at UC Berkeley. “Everybody says their model is the best. So transparency and independence help a lot.”

Chatbot Arena soon became a leading indicator in the rapidly evolving field of AI benchmarking: It gets a million visitors per month. Top AI companies and open-source up-and-comers alike come to test out their new models. Some companies even post models here before they release them generally (as OpenAI did with its GPT-4o last spring).

When things go well, it's a source of bragging rights and, as DeepSeek showed, even some international notoriety. Chatbot Arena users have tested several of its open-source models, with each one rising higher on the site's main leaderboard than the last. The company's most recent offerings are V3, a large language model similar to the one that powers ChatGPT, and R1, which spends more time computing a response before spitting it out. They hit Chatbot Arena in late December and January, respectively, and climbed the ranks quickly.

Days after its release, on a Friday, R1 jumped to the third-place spot. DeepSeek's chatbot app began topping the charts in mobile app stores; prominent

figures from Silicon Valley praised it. That Monday, investors erased almost \$1 trillion from the value of US and European technology stocks, as DeepSeek raised the possibility that the tech industry had vastly overspent on AI infrastructure.

The leaders of Chatbot Arena, Chiang and Anastasios Angelopoulos, also a postdoc at UC Berkeley, weren't taken aback. “It's honestly not super surprising that we see a model like this reach the top,” Angelopoulos says. “In a month it's not going to be DeepSeek R1, it's going to be a different model.”

Chatbot Arena isn't the only project to provide publicly available AI benchmarks; there are also efforts like SWE-Bench or Humanity's Last Exam. There isn't much standardization, and no official group oversees the methods used to test the models. Progress in the field is also so rapid that new models may quickly make existing assessments seem out-of-date. (Remember the Turing test?)

Chatbot Arena gauges how it feels to use each product. “Vibes is one way to put it. Another way to put it is real-world use-case testing,” Chiang says. “If you're OpenAI building ChatGPT, you care about your users.”

Companies typically work with Chatbot Arena to get their models on the site, then pay for the costs incurred by users probing them. The open-source site is maintained mostly by UC Berkeley

students; its data and code are available for others to use; and it's supported by some outside grants, such as from venture capital firms Andreessen Horowitz and Sequoia Capital.

Visitors are greeted by a pop-up warning that the site is a research project. They're instructed to pose a question to two anonymous chatbots, then pick the one they like best. After voting, the name of each chatbot is revealed. Those votes are used to help create a rating that estimates the strength of each model; it's a variation of the Elo system for chess, which assigns ratings based on the outcomes of head-to-head competitions. Users have logged more than 2.6 million votes for their favorite language models so far.

Chatbot Arena rankings have an aura of definitiveness. In fact, they're measuring something very specific: the reaction of its audience (a population that appears to skew toward academically minded folks interested in topics such as machine learning). The ranking system is “really cool, and we like to submit to it, but it doesn't really represent ‘Is this model good to work with? Is it easy for an enterprise to adopt?’” says Nick Frosst, co-founder of Cohere, which makes AI models and customizes them for businesses.

There are also some concerns about the potential for ratings to be manipulated. In a recent paper posted on Arxiv, an openly accessible archive of studies that aren't peer-reviewed, researchers simulated vote-rigging to point out possible vulnerabilities on Chatbot Arena. Angelopoulos and Chiang say the site has a number of protections in place to guard against malicious use. They haven't seen evidence of a successful attack against the site, Angelopoulos says.

Chiang, Angelopoulos and their collaborators are focused on how to improve the Chatbot Arena community, while also expanding the types of testing they do. They've begun to support other types of AI models, including image generators. Given the attention they've gotten, the researchers are also not ruling out the possibility that there's a business to be had here. “Definitely, we are thinking about it,” Chiang says. **B**

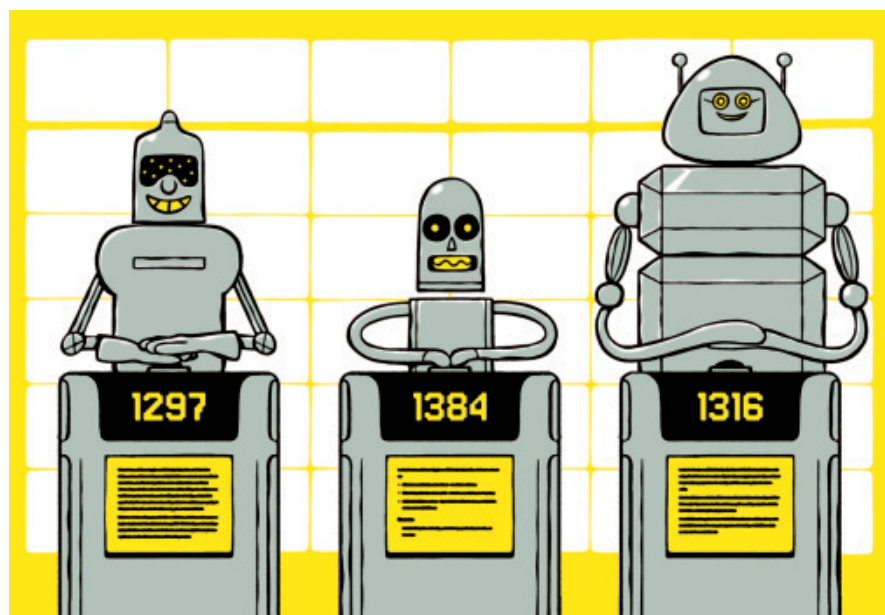


ILLUSTRATION BY PATRIK MOLLWING

A STAR ALLIANCE MEMBER 

CONNECT TO HOSPITALITY

with our caring cabin crew



TURKISH AIRLINES

Products and services are subject to change depending on flight duration and aircraft.



Tom Hale loved Oura's smart rings so much that the company hired him to be its CEO

■ PHOTOGRAPH BY JUSTIN MAXON FOR BLOOMBERG BUSINESSWEEK. RING, COURTESY OURA

Tom Hale, who runs Finnish smart-ring maker Oura Health Ltd. from its office in San Francisco, has noticed a bit of a stoicism gap between the Nordic and American cultures. “One of the things Finns really don’t like about Americans is that we get very excited. Everything’s ‘Great! It’s amazing!’” Hale, who was raised in Reno, Nevada, says on a sunny Bay Area afternoon. “For them, when something’s quite good, it’s ‘OK.’” he says, chuckling. “So now I always say, ‘Good job, you guys. You did very OK.’”

Hale, 56, is cruising through a chicken-kale salad at Per Diem, a yuppie FiDi haunt. He joined Oura in 2022 after stints leading Cars.com, HomeAway and SurveyMonkey. Oura’s rings—which look like slightly chunky wedding bands—track heart rate, sleep and activity levels and analyze the data with an app that gently suggests improvements. The vibe is less “Get ripped, bro!” and more “Age well, friend.” Since Oura’s founding in 2013, more than 2.5 million people have paid to wear its biometric Big Brother.

With Hale in charge, the company has done very OK. It more than doubled its sales last year, and Hale says it cleared about \$500 million in revenue and is profitable. In December, Oura raised \$200 million in Series D venture capital that valued it at \$5.2 billion.

Hale whips out his iPhone. “The way the ring works is it sort of learns you,” he says, opening the app. The night before, it reports, he took two minutes to fall asleep in his Japantown residence. (His poodles, Augie and Molly, share the bedroom. “A sleep no-no,” he says. “I wouldn’t recommend that.”) He slept six hours and eight minutes, for a sleep score of 72/100. This afternoon, his Readiness—a measure of his capacity for physical activity—rates a middling 80. Full of zippy verve, Hale is clearly disregarding the software’s algorithmic wisdom, which recommends he “take it easy” today.

The app’s personal touch has yielded strong word of mouth, Hale says: “We’ve always seen that the best salespeople for Oura are the users.” Indeed, customers rave about their rings, starting at \$299, with a kind of cultish devotion. Four people spotted wearing them around the city

before lunch swore to their life-changing properties. Celebrity cachet hasn’t hurt either. Early adopters included Kim Kardashian and Prince Harry, Cristiano Ronaldo and Chris Paul, Jack Dorsey and Michael Dell. And Oura’s profile rose higher following the 2018 release of its Gen2 ring. It was a sleeker alternative to the Gen1, which Hale says looked “like it was dropped from an alien spaceship, landed on a Nordic hillside and got polished by trolls.”

Oura’s next growth multiplier was less sexy: Covid-19. While much of the world locked down, Oura teamed up with two American universities for studies that concluded the rings could predict infections before symptoms arose. One organization that took notice was the NBA, which had vowed to continue games in a closely monitored Covid-free “bubble” and brought some rings into it. Oura wouldn’t share the financial terms of its deal with the league, but Hale says that, as a matter of marketing, “it was hugely transformative.”

Hale’s own Oura transformation began with a Covid-era Google search, when he was home full time with two teenagers and battling insomnia. The ring he bought suggested he give up coffee and evening wine. It suggested earlier bedtimes. Hale obeyed, and his sleep score soared. “I cannot overstate the impact that it had on me,” he says. “I felt like I had a new lease on life.” Instead of bingeing Netflix or doomscrolling before bed, he started reading. (Currently: *Too Big to Fail* by Andrew Ross Sorkin.)

Soon after, Hale went full wearable. On a typical day, he’s got an Apple Watch, a continuous glucose monitor patch and two Oura rings: his “personal” ring and a beta version with an AI bot that can chat with him about his numbers. Usually he wears an Aktia blood pressure bracelet, too. When the devices disagree, he says, he sides with Oura.

When seeking a new CEO three years ago, the Oura board could sense Hale’s “passion for the mission,” says director Eurie Kim, who’s based in San Francisco.

They also liked his résumé. “We needed somebody who had public-facing company experience but also a builder mentality,” Kim says. “He’s one of these leaders that can see what has to be done today and just execute beast mode.”

Beast mode entailed boosting retail. The release of a €1,000 (\$1,251) Gucci-branded Oura ring in 2022 preceded deals with Amazon.com, Best Buy and Target. To lead that push, Hale hired Doug Sweeny, a retail marketing veteran (Adidas, Levi’s, Nest). Hale also pushed Oura into acquisitions, including data firm Sparta Science, Finnish health company Veri and digital identity startup Proxy. Sales grew along with the rings’ features. “With Tom, we have achieved a lot of the dreams and goals that we had in the early years,” says Marjut Uusitalo, the company’s senior director of human resources.

One of those goals was to better appeal to women. For most of its life, Oura had primarily sold to the kind of man who fancies himself a biohacker (and says “biohacker” out loud). But Uusitalo had noticed early on that the ring could track menstrual cycles by detecting changes in body temperature.

Hale chose to lean in: In mid-2022, Oura announced a partnership with Natural Cycles USA Corp., a birth control app. Today, women are Oura’s main customer base.

But post-*Dobbs*, what about concerns over abortion surveillance? Could a court order Oura to relinquish users’ menstrual cycle data? Hale offers a somewhat cryptic reassurance. “Obviously, we have to comply with the law, but we’ll stand with you,” he says. So far, he adds, Oura hasn’t received any such orders.

The Oura Ring 4, released last fall, is also facing stronger competition. Ultrahuman, Evie and RingConn are gaining momentum in the market. Samsung Electronics Co. released its own ring last summer, and Apple Inc. could be next. Hale insists he isn’t worried. “We’ve got the patents,” he says. “We’re well protected on that front.” He appears ready to dig in, with an American level of excitement. **B**





XL Insurance

Facing into risk for a future to be imagined

AI hacking may not be a big thing yet...

AXA XL constantly pushes the boundaries to protect your data and networks from cyber risks.

Discover our cyber solutions for businesses on axaxl.com/facing-into-risk

Know You Can





■ PHOTOGRAPH BY DAVID SPECTOR FOR BLOOMBERG BUSINESSWEEK

China has embraced creative destruction, says **Tom Orlik**

China faces rising US tariffs from President Donald Trump. Its property market is slow-motion imploding. Its economy is deflating. So will Premier Li Qiang announce the shock and awe stimulus that markets have been pinning for at this month's National People's Congress? Don't count on it. After decades following British economist John Maynard Keynes and his doctrine of demand management, China's leadership is taking a lesson from US economist Joseph Schumpeter and his creed of creative destruction.

The latest headache for policymakers: a 10 percentage point tariff hike on all exports to the US, on top of the 25% duties Trump decreed during his first term. Forecasting the effects with any precision is tough to do, but estimates from the academic literature suggest the new curbs could trigger a 20% drop in China's US sales.

This time, the blow from abroad comes as China faces weakness at home. After a decade of overbuilding and overborrowing, the property sector is in the midst of a controlled collapse. Real estate investment, once the biggest engine of China's growth, has been falling for close to four years. The significance of this is hard to overstate.

In the boom years, China's real estate build-out powered everything from steel mills to furniture factories. Banks loaded up on loans to developers. Property was the biggest asset on households' balance sheets, accounting for about 70% of their wealth. Now the bust is here, and spillovers are rippling across the economy. Steel mills are shuttered. Banks are wondering if they have enough capital to cover loans that have soured.

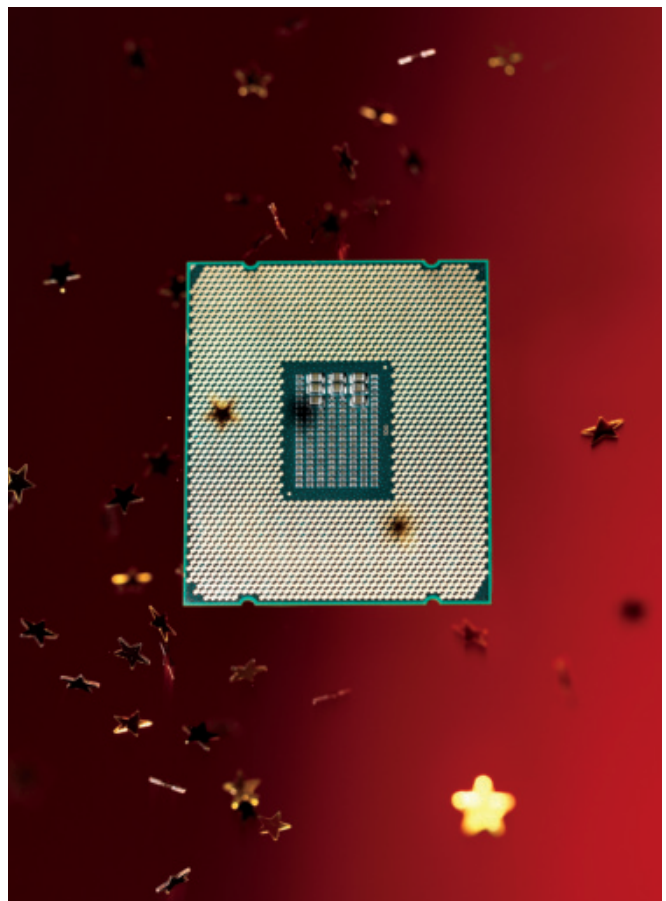
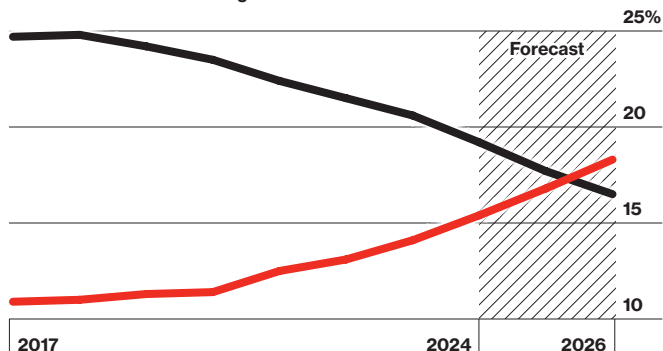
Spooked by the drop in home values, households are saving more and spending less. Chinese businesses have responded to softening demand by marking down prices. The result has been a two-year stretch of deflation, the longest since Asia's financial crisis in the late 1990s.

The pileup of problems has stoked expectations that Premier Li will announce a large package of stimulus measures at the annual meeting of China's legislature, which gets underway on March 5. In fact, whatever support for growth Li offers is likely to be much more modest. According to Bloomberg Economics' projections, China's fiscal deficit is set to swell from 6.6% of gross domestic product in 2024 to 8.5% in 2025.

Less Cement, More Silicon

Contribution to China's GDP

Real estate sector High-tech sector



Reaching for the firearms metaphors that are frequently called into service when sizing up government stimulus, that increase is more than a water pistol but hardly a bazooka.

Stinting on economic support is a break from China's norm. The rest of the world had moved on from Keynes and his great insight—born of the Great Depression of the 1930s—that in a downturn the government should pay people to dig holes in the ground and then fill them in. But until pretty recently, roads to nowhere, desolate airports and vacant apartment towers showed China was sticking to the Keynes playbook.

This resolve was great for growth. In the years after the global financial crisis of 2008, China's economy continued to hum, while self-imposed austerity delayed recoveries in the US and Europe. All that stimulus, though, left China laboring under a heavy burden of overcapacity. In the end, too many idle factories, too many empty apartments and too many unpaid real estate loans resulted in an economic malaise not dissimilar to the one that afflicted Western economies in the 1970s after their decades of following Keynes' recipe.

What's the solution? Whether by choice or necessity, Keynes is out and China is now following the precepts of another great economist: Schumpeter. In *Capitalism, Socialism, and Democracy*, his magnum opus, Schumpeter argues that the power of the capitalist system came from a "perennial gale of creative destruction" blowing through the economy. New technologies displace old technologies. New

PHOTOGRAPH BY DAVID SPECTOR FOR BLOOMBERG BUSINESSWEEK ■ DATA: CHINA NATIONAL BUREAU OF STATISTICS, BLOOMBERG ECONOMICS

Schumpeter made the case that creative destruction was unique to capitalism. China is demonstrating that it can work in its hybrid state-plus-market system, too

companies displace old companies. For the losers, it's painful. But it drives progress.

Schumpeter made the case that creative destruction was unique to capitalism. China is demonstrating it can work in its hybrid state-plus-market system, too. Exhibit A is the property sector, where after years of backstopping developers, the government is allowing them to face the consequences of their excesses. The shakeout has been savage for all those involved, from bondholders to homebuyers who made down payments on apartments that will never be built. But it also means capital and labor are freed up for more productive purposes. Bloomberg Economics forecasts that by 2026, real estate will contribute less than 17% of China's GDP, down from almost a quarter in 2017. High-tech sectors are poised to increase their share from less than 11% to more than 18% over the same period.

The embrace of Schumpeter's gospel is also evident in the degree of competition that exists in some of China's newer industries. In electric vehicles, the US has Tesla Inc. China has BYD, Geely, Nio, Xiaomi, Xpeng and more. China's EVs get a major retrofit every one or two years, compared with four or five for foreign brands. The research and development burden for automakers is high, but Bloomberg Intelligence analyst Joanna Chen says the rapid pace of innovation has put the industry in the fast lane.

China's e-commerce arena is fiercely contested, with incumbents like Taobao, JD.com and Pinduoduo jostling for market share with newcomers like social commerce platforms RedNote and Douyin. And as the world learned in January, the country is no slouch in artificial intelligence, either. The sophistication of DeepSeek's R1 model may have caught US investors by surprise, but it's only one of more than 300 large language models created by China's legions of software developers.

Is the transition from Keynes to Schumpeter going to be smooth? No. As Arthur Kroeber, head of research at Gavekal and the author of *China's Economy: What Everyone Needs to Know*, memorably put it, the country is moving from a diet of cheesecake to a diet of broccoli—less tasty but more healthy. Even as real estate remains the dominant—and negative—force powering the economy, BYD Co.'s surging EV sales and DeepSeek's market-shaking AI demonstrate the potential. It won't be long before writing code is a more important driver of China's growth than pouring concrete.

In the US, tech champions already enjoy enormous market power. If their position onstage at the Trump inauguration is anything to go by, they're looking to build strong relations with the White House to help cement it. Elon Musk's central role in the government will surely not erode the competitive position of his many businesses. At the same time, Trump's tariffs promise to shelter legacy industries such as steelmaking and autos from global competition.

It was as an immigrant to the US—and professor at Harvard—that Schumpeter developed his theory of creative destruction. If the US is to stay ahead in the global economic race, it would be wise not to forget his wisdom, especially as China has just learned it. **B**

Joshua Green explains how the Democrats lost tech

From a distance, there's plenty that's familiar about Donald Trump's second presidency. The chaos and tumult, the bullying pronouncements, the neck-snapping policy reversals, the dizzying sensation of the treadmill suddenly cranking up to full speed—all vintage Trump.

What's different this time is the force driving much of the early action. In policy and style, Trump's first presidency was dominated by a noisy crowd of MAGA populists. But Trump 2.0 features a rival power center led by Elon Musk and composed of Silicon Valley tech and crypto folks, many of them new to Washington and eager to move fast and break things.

The most prominent members of the tech elite—Jeff Bezos, Tim Cook, Sundar Pichai and Mark Zuckerberg—all paid their respects at Trump's inauguration, at least temporarily defusing his wrath. Musk's Department of Government Efficiency is running roughshod over every corner of Washington. Trump installed Musk crony and former PayPal Holdings Inc. executive David Sacks as the White House artificial intelligence and crypto czar. And he swapped out Joe Biden's Securities and Exchange Commission chair—Gary Gensler, the *bête noire* of the digital-token crowd—for the crypto-friendly Paul Atkins.

Democrats are aghast but mostly powerless. Some Trump loyalists are discovering they are, too. When old-school MAGA bosses such as Steve Bannon have challenged Musk and the tech crowd, they've generally lost. Although the two men share some policy goals and a destructive zeal, Bannon went to war with Musk during the transition, aiming to thwart the Tesla Inc. and SpaceX founder's desire to increase the number of high-skilled immigrants allowed into the US through the H1-B visa program. In early January, Bannon vowed to have Musk “run out of here by Inauguration Day” and declared that “he will not have full access to the White House. He will be like any other person.”

Wrong, wrong, and wrong.

Trump hasn't only sanctioned Musk's assault on government, praising him as “a very talented guy from the standpoint of management and budget.” He's also echoing tech-world talking points about the desirability of keeping educated immigrants in America. “You graduate from a college, I think you should get, automatically, as part of your diploma, a green card to be able to stay in this country,” Trump said on the popular tech podcast *All-In*.

Everywhere in Trump's Washington are signs of tech's newfound influence. Federal Trade Commission Chair Lina Khan is gone, and her antitrust actions against Amazon.com, Apple,

Google and Meta are in limbo. TikTok could soon be forced into the arms of a US buyer. Peter Thiel's Palantir Technologies Inc. and Palmer Luckey's Anduril Industries Inc. are primed to land lucrative government contracts. Musk's companies will surely eclipse them. And Trump didn't just reverse Biden's resistance to all things crypto; he minted his own meme coin (\$Trump) and floated a national Bitcoin reserve.

In the past, when a Republican president was inaugurated, Washington would teem with young conservative ideologues in blazers eager to carry out a revolution. Today it's crawling with Silicon Valley tech bros and teen coders tearing apart government computer systems.

Perhaps that shouldn't be a surprise: Musk was the biggest donor in the 2024 election, spending well over \$250 million to elect Trump and Republicans, while the crypto industry kicked in at least \$133 million more, most of it to help the GOP. Silicon Valley's conquest is the culmination of a yearslong effort to influence Washington. It just hasn't happened the way many of its original members imagined or wanted.

Silicon Valley first emerged as a political force in the mid-2000s, when a combination of anger over the Iraq War and changes in campaign-finance laws suddenly made it a major player—on behalf of Democrats. Opposition to the war and the Bush administration pushed many tech elites from casual Democratic supporters to committed activists and donors. Meanwhile, social networks were opening the floodgates of online fundraising right as the McCain-Feingold Act curbed big political donations.

In 2008, Washington's Democratic establishment thought Hillary Clinton would be the next president. But the Valley's leading tech figures practically deified Barack Obama. When I visited the area that spring, no one fretted about his lack of experience. Instead everyone likened him to a hot internet startup: He had great buzz and a compelling pitch; he just needed money to become the next big thing. “I'll tell you, we recognize what great companies have been built on,” a top Obama-backing venture capitalist boasted to me, “and that's ideas, talent and inspirational leadership.” That year, Silicon Valley raised more money for Democrats than Hollywood did, helping Obama beat Clinton en route to the White House.

A tech-friendly ethos permeated the new administration. Obama pledged transparency in government data, set up a chief technology officer in the White House and directed much of the \$787 billion stimulus pumped into the

US economy after the financial crisis to cleantech companies led by entrepreneurs such as Musk (who rescued Tesla with a \$465 million loan from Obama's Department of Energy). But what the tech world wanted most from Washington—and mostly got—was to be left alone to innovate and “disrupt.”

Trump's victory over Clinton in 2016 ruined the romance. Instead of grappling with her shortcomings and the party's diminished appeal, many Democrats pointed a finger at Silicon Valley, blaming social media, disinformation and Russian hacking while singling out companies including Facebook and Twitter for abuse. Zuckerberg and other tech chief executive officers were routinely hauled before Congress and vilified by angry Democrats. “Like a toddler who has gotten his hands on a book of matches, Facebook has burned down the house over and over,” then-Senator Sherrod Brown declared at a 2019 hearing.

In 2016, Trump had few prominent tech supporters besides Thiel. But Biden's presidency spurred a rightward shift. Democrats concerned about issues such as privacy, monopoly power and social media's effects on young people changed their mind about the benefits of “disruption” and tightened the regulatory screws. The crackdown extended to crypto, which prominent Democrats from Gensler to Elizabeth Warren tried to snuff out, to no discernible political benefit. “There are probably more giant pandas in the wild today than single-issue anti-crypto voters,” says Justin Slaughter, a former Biden SEC official who's now policy director at the crypto investment firm Paradigm.

Among tech folks, the party's brand morphed from champions of new technologies to stubborn skeptics, driving even some committed Democrats to Trump. “I was a card-carrying progressive leftist,” says Nic Carter, a partner at the crypto-focused Castle Island Ventures, who once worked as an Obama field organizer but last year backed Trump. “If you're in the crypto space, it's hard not to have been radicalized politically by the Biden years.”

For some Silicon Valley CEOs, the Democrats' turn to identity politics was particularly unsettling. In a recent *New York Times* interview, the Trump-supporting venture capitalist Marc Andreessen distilled the paranoid outrage he felt when his own employees allegedly bombarded him with “woke” epithets: “You are all evil. White people are evil. All men are evil. Capitalism is evil. Tech is evil.”

Like the last political awakening, Silicon Valley's push for Trump was fueled by a change in campaign-finance laws that tech moguls—Musk in particular—recognized and exploited. In 2014 the Supreme Court struck down aggregate limits on donations to political candidates and party committees, vastly increasing the potential for wealthy donors to influence elections. A decade later, the world's richest man went all-in to elect Trump and showed what a decisive factor that could be.

Tech's new mix of self-interest and self-pity culminated in another political backlash, this time in the opposite direction. One CEO, who'd backed Obama and who requested anonymity for fear of reprisals from political opponents, laments the new Valley zeitgeist. “People here tend to follow the folks they



respect,” he says. “My generation, the Google generation of Steve Jobs, Eric Schmidt, Jerry Yang and Sheryl Sandberg, were all Democrats. So everybody else was, too. The new generation is the PayPal mafia guys minus Reid Hoffman, and they're all right-wingers. That's why Elon, Thiel and Sacks are so influential.”

In Washington the spirit of radical openness that tech brought to the Obama era is long gone. Musk's DOGE team has removed or shut down government databases and sought to eliminate entire departments such as the US Agency for International Development. Instead of directing more money to green technologies, as Obama did, Trump aims to direct less, for example by canceling the \$7,500 electric-vehicle tax credit. The public pride that tech leaders once took in helping to elect the first Black president has also been relegated to the past, as Musk and others work feverishly to cancel diversity, equity and inclusion programs throughout the government.

Most tech moguls have greeted the new Trump era with plaudits or anxious salutes. “We now have a US administration that is proud of our leading companies, prioritizes American technology winning, and that will defend our values and interests abroad,” Zuckerberg said on a recent earnings call for Meta Platforms Inc. He had every reason to strike a positive tone, given Trump's past threats to jail him for life.

But MAGA stalwarts such as Bannon, who spent years vowing to displace Silicon Valley and destroy the likes of Zuckerberg, Bezos and Musk, are having a harder time accepting tech's new prominence in Trumpworld. Not that its source is much of a mystery. “Being able to write a \$250 million check,” Bannon says, “gives you a lot of throw weight.” **B**



■ PHOTOGRAPH BY BRAD TRONE FOR BLOOMBERG BUSINESSWEEK, PROP STYLIST: EMMA BAGLEY

Why med spas are sprouting up everywhere, according to Amanda Mull

If you start at the corner of Fifth Street in Brooklyn and walk south along Fifth Avenue, it doesn't take long before you notice a pattern: Every block or two, you'll pass another storefront advertising the latest in aesthetic enhancements. Some of them specialize in lasers to zap unwanted hair or resurface skin. Others offer injections of all kinds—Botox, lip filler, fat dissolver, butt plumper. You can get CoolSculpted, Emsculpted or Sculptra'd.

After 10 minutes or so, you'll have passed at least six med spas. (For the uninitiated, that's short for "medical spas.") If you'd walked north instead, you'd have seen another two or three, plus a few more tucked away on side streets. All these businesses coexist in Park Slope, a New York City neighborhood that, though wealthy, is usually stereotyped as a haven for crunchy parents who name their kids things like Phineas or Andromeda and feed them only organic produce. Not necessarily the people you'd assume could keep almost a dozen Botox-and-hair-removal depots in business within a one-mile radius.

Park Slope is rarely a reliable bellwether for national trends, but in this the neighborhood is very much in lockstep with the rest of the US: According to data from the American Med Spa Association, or AmSpa, the industry expanded more than sixfold from 2010 to 2023, from about 1,600 locations to more than 10,000. Average annual revenue per spa more than doubled during that period, reaching almost \$1.4 million. Nationwide, med spas were a \$15 billion business in 2023, and most analyses show the industry continuing to expand by about 15% per year in the future. The US is in the middle of a med spa boom, and you can see it all over our faces.

Think of med spas as the vape shops of the health-care world. Regulatory changes, technological advancements and the normalization of previously taboo personal habits have combined to create demand for products that existing businesses were poorly equipped to meet.

In both their offerings and their general ambience, med spas split the difference between a hair salon and a doctor's office. They're staffed by people licensed to administer injections and other types of medical care, but they tend to look and feel more like the kind of place where you'd get a manicure or massage. What any particular med spa offers can vary widely. Some specialize only in injectables or hair removal or laser skin services, whereas others offer all of the above, plus GLP-1 weight loss drugs, vitamin injections, IV drips meant to rehydrate you after a night out and hormone replacement therapy. On average, according to AmSpa, patients spend more than \$500 per visit: Botox and some types of filler can cost as little as a few hundred dollars; treatments such as CoolSculpting or laser facials can be more than \$1,000 per visit.

The med spa is a phenomenon born of the promise and possibility of Botox. When the wrinkle-freezing neurotoxin won US Food and Drug Administration approval for cosmetic use in 2002, the treatment introduced the general public to a seductive idea: Duck into a dermatologist's office on your lunch break and emerge in half an hour with a younger-looking face. But the US isn't exactly overflowing with dermatologists, and it didn't take long for demand for cosmetic treatments to overwhelm existing specialists. More types ►

◀ of providers—general practitioners, eye doctors, dentists—were happy to take the fast cash and added these services to their repertoire. But as cosmetic injections became more mainstream, white space opened up for a new kind of business entirely.

Barriers to entry are low, as long as you're already licensed to perform basic medical procedures. "With a few thousand bucks and prior training or experience, you can get started in like a month or two," says Dan Friedman, co-founder of Moxie Inc., a consulting company that specializes in med spa startups and expansion. Buying neurotoxins, fillers and injection supplies is straightforward and relatively inexpensive for licensed injectors, as is renting a salon suite at one of the growing number of businesses that subdivide larger spaces for use by independent aestheticians, hairstylists and other cosmetic practitioners. Eventually, providers expand into their own space, hire employees and buy more expensive equipment that allows them to offer additional services, such as laser hair removal. Crucially, med spas are cash businesses, which means they avoid the expense and red tape of the American health insurance bureaucracy—a big motivator for the still-expanding horde of providers.

The growth in med spas didn't really kick into overdrive until the financial and cultural aftermath of the Great Recession, according to Alex Thiersch, the founder and chief executive officer of AmSpa. By 2010 interest rates were low, the industry's technology was improving, and regulatory changes had begun to make it easier for nurse practitioners and physician assistants to set up their own clinics without a doctor on the premises.

These business owners had a wind at their back that was arguably even more powerful than new tech and cheap money. "The renaissance for medical aesthetics came with social media" and reality television like the *Real Housewives*, Thiersch says. "Everybody could see not only what the treatments were like and how much fun people had at med spas but also that it made them feel better about themselves." Instagram and then TikTok amplified that effect, allowing for the wide circulation of before-and-after comparisons.

Investors, of course, have taken notice of the sector's growth as well as its profitability. Friedman says that among his clients, a 20% margin is the broad goal, though 30% is possible for owners who don't expand ahead of demand. Many establishments have added off-brand GLP-1 weight-loss shots to their offerings in the past year or two, which Friedman estimates now make up as much as 15% of their business. "If you own a successful med spa, you have been contacted by not one, not two, but, like, dozens of private equity firms," Thiersch says.

Ideal Image, the US's largest med-spa brand, has attracted investments from L Catterton, the private equity arm of LVMH Moët Hennessy Louis Vuitton SE, and TPG Growth LLC. Ever/body, a chain of sleekly designed high-end med spas, is backed by Tiger Global Management LLC. Other groups have

tried to roll up existing independent med spas the way private equity did with hospitals and veterinary offices.

So far, though, private equity's incursion into the med-spa space has been limited. According to AmSpa's numbers, private equity owned only about 3% of US spas at yearend 2023. In part that's because the vast majority of them are too small to be efficiently rolled up. More than 80% of the sector comprises single-location spas, according to AmSpa data. "They're not, say, going to one owner who owns 20, because there's just not that many of them out there," Thiersch says.

Instead, investors have to pick off storefronts one by one, a process too tedious and low-value to interest bigger companies. Even then it can be dicey, because, as with hair salons—another sector that has yet to be rolled up—patrons tend to be loyal to a particular provider at a med spa, not to the spa itself. So if a favorite injector leaves, their clientele goes with them. (PE is known for a lot of things, but hanging on to valuable longtime employees is not one of them.)

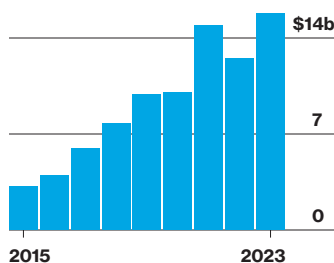
It's easy to wonder, though, whether the thing that ultimately slows down the med spa money train might be the industry's unchecked success. "There are people who come into this industry who are not well trained, who are not experienced or qualified enough to do certain treatments, who cut corners and who have kind of flown under the radar because the industry has grown up so quickly," Thiersch says. It's not hard to find horror stories of botched treatments, and he says if the industry doesn't take care to ostracize those kinds of providers and set a baseline of education required of every practitioner, it could ultimately damage the public's trust or attract the kind of regulatory scrutiny the industry has so far been adept at avoiding.

Perhaps a more imminent threat is that the visible results of popular med-spa procedures will simply fall out of favor. The med-spa look has become so mainstream and recognizable—the overfilled lips, the glass-smooth forehead, the combination of multiple procedures that's come to be known in some circles as "Mar-a-Lago face"—that the trend pendulum seems to be swinging back toward a more natural look. There are worries that fillers don't magically disappear within the body, as has long been advertised. Instead, much of it seems to stick around beneath the skin, sometimes migrating to other parts of the face and giving patients a lumpy, pillowy look that's spooked a growing number of people into preemptively signing up for treatments to dissolve their fillers.

But in an industry like this, a changing trend is little more than an opportunity for new offerings. Already, med spas and their vendors have begun rolling out techniques and technologies they say will offer better, more believable results, including biostimulators, which prod the body to produce more of its own collagen and which have the added bonus of necessitating multiple return visits. The business of ameliorating cosmetic dissatisfaction is never a bad one to be in. **B**

Med Spa Mania

Annual industry revenue in the US



NEW YORKERS CAN MAKE IT ANYWHERE.



**NEW YORK JOBS
CEO COUNCIL**

But for many who call New York home, pathways to life-changing careers are out of reach.

We're CEOs championing local talent and opening doors to careers that will drive our companies and our economy forward.



Jamie Dimon

**Chairman & CEO,
JPMorganChase**

Speaks with students
at Queens College

LET'S HELP THEM MAKE IT HERE.



Julie Sweet

Chair & CEO, Accenture

Visits with students
at City College



Join us in building a stronger
New York at **jobs council.org**

Bill Gates, Open Source

● By Gary Sernovitz

There is utility to be had in Bill Gates' memoir of childhood, *Source Code: My Beginnings* (Knopf), but there is also joy: the joy of marveling at genius coming into focus—confident, watchful, disciplined, exuberant, boyish and prickly—the joy of watching a door left ajar kicked open wide. (This is the same joy as watching Timothée Chalamet play Bob Dylan in *A Complete Unknown*.) Yet the book is more than that. Subtly, searchingly, always trusting the reader, Gates explores the mysteries of why he of all people became *the* Bill Gates: not only the first of the world-conquering tech titans of our era but also, in his second act, likely the best of them.

Figures like Gates tend to write (or commission) “My Whole Life Considered,” telling their best stories, settling scores. Indeed, *Source Code* is the first volume of a planned trilogy. In it, Gates takes us from his early childhood to 1978, when the 23-year-old entrepreneur led the dozen employees of a young Microsoft from Albuquerque, New Mexico, back to his hometown of Seattle.

The iconic modern American memoirs of childhood—the literary ones and the bestsellers, from Frank Conroy to Mary Karr to Tara Westover—are about unusual, often feral early lives dusted up by wild adults on the margins of respectability and society. The end point of these books is the surviving of that childhood and the ability to write about it.

Gates' upbringing, to the contrary, was exceptionally respectable and survivable. He was often the only agent of chaos. *Source Code* has little violence (a high school friend dies in a climbing accident; Gates provokes his father to empty a glass of water on him), little wildness (Gates tries LSD and pot, but he prefers Shirley Temples and Tang) and even less sex (Gates asks a crush to prom; she says no). As a standalone book of nearly 300 pages, it's a delightfully strange



project. One doubts many readers were burning to know what Gates was like in third grade.

Yet the book compels. We can't ignore the end point for our continued interest, but even that advantage undersells the memoir's achievements. “Source code,” a programmer's term, is a metaphor for the roots of Gates' success. It also seems to be a style cue drawn from his coding ideal, “efficient and pleasingly simple” scripts, so necessary in the era of underpowered computers.

This aesthetic has Gates mainly

presenting incidents sequentially. It has him trying to be a transparent judge of his strengths, his flaws, his limits—accepting a generalist mind and learning at Harvard University that even a student of his formidable math skills didn't have the “gift of insight” to make fundamental discoveries. He lets readers assign causality for his talents (a shocking capacity to survive on little sleep, “logical thinking and an ability to focus intensely for long periods”) to his parents and grandparents (especially his card-whiz grandmother) and to luck in having access

■ PHOTOGRAPH BY JUSTIN L. WEE FOR BLOOMBERG BUSINESSWEEK. COVER: COURTESY PENGUIN RANDOM HOUSE

to computers before almost any other teenager in the world.

With research and writing assistance from Rob Guth, Gates takes us through four phases of his youth. There was a messy neurodivergent boyhood of intense thinking and equally intense ignoring of “daily rituals of life and school, handwriting, art, and sports.” There was an even more difficult precocious period starting at age 9 in which Gates, paraphrasing his father, “became an adult overnight—an argumentative, intellectually forceful, and sometimes not very nice adult.” A third phase began in eighth grade with the input of ambition (inspired by Kent Evans, the friend who died) and an output, at last, of computers. The final phase was the beta-version executive, managing a business while attending high school and then Harvard, becoming an aggressive competitor, colleague, “taskmaster” and chief obsessive in not losing the early lead Microsoft had so serendipitously gained.

So how did he become one of our world’s most successful people? In part, by having loving, model parents who, in much of the book, aren’t doing much parenting at all. (Gates writes about his fortune in being raised in a generation where everyone’s childhood was feral by today’s overparenting standards.)

By fourth grade in a crowded public school, Gates “could go days without speaking, emerging from my room only for meals and school.” His parents, tired of being ignored or insulted, finally brought him to a therapist. Gates admitted to the therapist, “I am at war with my parents.” And the therapist’s advice to his parents? “Give it up. He’s going to win.” They listened. In his teens, Gates went for weeklong unchaperoned hiking trips with his friends. He sneaked out of the house overnight to hop on a city bus to computer labs.

All of this would have likely allowed Gates to be successful at most things. Yet pioneering megasuccess in software was only possible due to some gob-smacking coincidences and breaks that started in 1968. This is the thrilling center of *Source Code*. Gates still marvels at the improbability that Lakeside, his

private Seattle high school, got access to a California-based computer via a teletype machine—a chugging piece of equipment “that looked like a typewriter with a rotary telephone dial on one side”—when almost no other home or high school had anything like it.

That lucky first exposure cascaded into a series of openings. First, a soon-to-fail computer timesharing business let Gates and his Lakeside friends (including Paul Allen) use a mainframe computer to find software bugs. Later, the federal agency distributing power in much of the Pacific Northwest was running late and over budget on a computer project to balance electricity supply and demand. It desperately needed programmers. Gates, then a high school senior, got permission from his parents and Lakeside to take two months off to live and work in Vancouver, Washington, 175 miles away.

In 1975, while Gates was still at Harvard, Allen read an article about Albuquerque-based MITS, creator of the first home computer kit, a rudimentary machine and business model with only one advantage, bulk discounts on Intel microprocessors. Allen and Gates recognized that the kit was functionally useless, as no one had developed any software for it. Gates and his team were the first to customize the code that made increasingly popular and powerful hardware actually useful. This is all great fun and a reminder of the ironies and innovator’s dilemmas that have constantly reshaped our world for the past half-century.

This part of the book—computer man reminiscences about computer boy—is the clear source code for Chief Executive Officer Bill Gates, the software visionary and first mover who pressed Microsoft Corp.’s lead for the next 25 years before handing the keys to Steve Ballmer in January 2000. But the memoir is equally enthralling as the source code for the past quarter century of the life of Gates, who’s had, with President Jimmy Carter, one of the most improbable second acts in recent American history (though his record is far from spotless). This is Gates who went from irritable, accused monopolist to philanthropist, relentless enemy

of malaria, celebrator of books and ideas, author (his *How to Avoid a Climate Disaster* is one of the most thoughtful primers on the topic) and soft-spoken, compassionate citizen. This is not the path of Jeff Bezos or Elon Musk.

Source Code gives an implicit cause of all this. To the young Gates, technology was an outlet rather than an inspiration in and of itself. At the Seattle World’s Fair in 1962, Allen was entranced by the IBM pavilion; Gates remembered the Belgian waffles and the Wild Mouse ride. Allen “subsisted” on science fiction; Gates read it but was equally interested in history and hiking. Steve Jobs and the *Whole Earth Catalog* crowd married the counterculture ’60s with technology’s power. Gates blew off his Massachusetts Institute of Technology interview to play pinball, preferring Harvard for the breadth of courses. Computer work, he wrote in his Harvard application, was “a great opportunity to have a lot of fun, earn some money, and learn a lot. However, I don’t plan to continue concentrating in this field. Right now, I am most interested in business or law.”

Business and law were the worlds of his parents and their friends. But only part of their world. As Gates writes, “If my parents sound a little virtuous and resolute about volunteering, giving back... that’s really who they were.” *Source Code* is in many ways a thank-you letter to them, as models whose values Gates would come to inhabit eventually, and for those values themselves: of small-d democracy, of community-building, of civic pride rooted in history and place.

I suspect that Gates’ next two volumes will be harder to write: more incidents to defend, more feelings to protect. But *Source Code* succeeds joyfully as the long prologue. And maybe that’s because it’s less different than the iconic modern American memoir of childhood than it first seems. Its best bits come when kids



are punks and left alone. Its energy comes from our national, stubborn yearning for wild individuality. Its heart comes not from the things we do, but the good we can become. **B**

Trade US Stocks and ETFs, Index Futures and Options, and Bonds Around the Clock

React immediately to market-moving news and trade over 10,000 US Stocks and ETFs, US Equity Index futures and options, US Treasuries, global corporate bonds, European government bonds and UK gilts when it's convenient for you.

The best-informed investors choose Interactive Brokers



ibkr.com/convenience



Member - NYSE, FINRA, SIPC – Any discussion or mention of a stock or ETF is not to be construed as recommendation, promotion or solicitation. All investors should review and consider associated investment risks, charges and expenses of the investment company or fund prior to investing. Before acting on this material, you should consider whether it is suitable for your particular circumstances and as necessary, seek professional advice. Options involve risk. For more info see ibkr.com/occ

01-IB25-1717

In Depth

How to navigate the unpredictable markets

The Age of Risk

For investors, volatility is always part of the equation. But as the finance world races to adapt to another four years of Donald Trump, it's top of mind for almost everyone. This month, *Bloomberg Businessweek* answers eight big questions about personal finance (**page 52**), shows how scammers have flourished recently (**page 60**), looks at possible Trump taxes (**page 62**), examines gold's role in Indian retirement (**page 56**), explains why private equity wants part of your 401(k) (**page 61**) and introduces the new "finfluencers" (**page 64**).

ILLUSTRATION BY MADAME REDLICH

Your Personal Guide To a Perilous Year

We answer eight questions you're likely to encounter as you plan your financial future

By Suzanne Woolley



This year has already been... a lot. The whole AI narrative that was powering the US stock market is being called into question. There's little certainty about how a second Donald Trump administration will affect the finances of average Americans, and whether we'll see inflation rise again, pressuring stocks, bonds—and all of our pocketbooks. To help navigate these murky times, we quizzed investment experts on big questions investors face in a year that, while brimming with risk, could also bring rewards—with the right strategies.

1

What are the odds of a big drop in the S&P 500 this year, and how should I prepare?

The S&P 500 has gained more than 20% for two years running—something that's happened only 10 times since 1871, says Michael Cembalest, chairman of market and investment strategy for J.P. Morgan Asset Management. Although Cembalest expects the stock market to end the year higher, he also says it could drop

“Stocks have been one of the best hedges against inflation in the long term”

by as much as 15% along the way—which, he notes, is less unusual. The index has tumbled 10% or more in 60 of the past 100 years.

Given the likelihood of market gyrations, a better question is when you'll need your money. Every drop has been followed by new highs, so if you can wait a few years before cashing out, you'll probably be fine. Also, take a good look at your diversification. Simply holding the S&P 500 won't cut it, since the top 10 stocks—mostly tech names—make up about two-fifths of the index's market value, versus just over a quarter in 2000.

ILLUSTRATIONS BY MADINE REDLICH

One way to diversify is to buy an exchange-traded fund that tracks an equal-weighted version of the index, where every company represents about 0.2% of the value, says Ben Inker, co-head of asset allocation at GMO LLC. “Longer run, it’s been a nice way to not get too caught up in whatever the current fad is,” he says.

2

Does a traditional 60-40 portfolio still make sense?

Financial planners have long counseled a portfolio of 60% equities and 40% bonds, which for many decades provided decent returns with far less risk than stocks alone. But the logic behind the mix—that bonds will zig when stocks zag and vice versa—famously failed in 2022. With inflation soaring, the US Federal Reserve aggressively raised interest rates, and equities and bonds alike got whacked. At times recently, US stocks and bonds have moved roughly in concert.

More investment managers advocate putting part of a 60-40 mix into so-called alternative assets—private securities that don’t move in lockstep with their public counterparts. Adding those could introduce new risks but might also bump up long-term returns. Companies are staying private longer before listing on a stock exchange, which means investors in public markets miss out on more of the higher returns made in a company’s earlier years, says Sinead Colton Grant, chief investment officer for BNY Wealth. “If you don’t have private equity and/or venture capital,

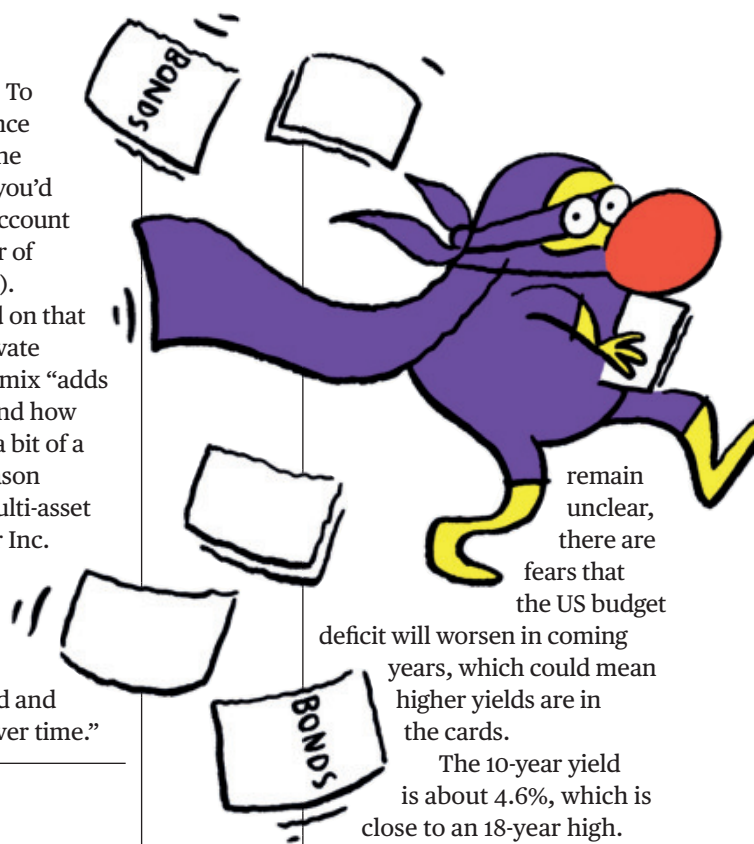
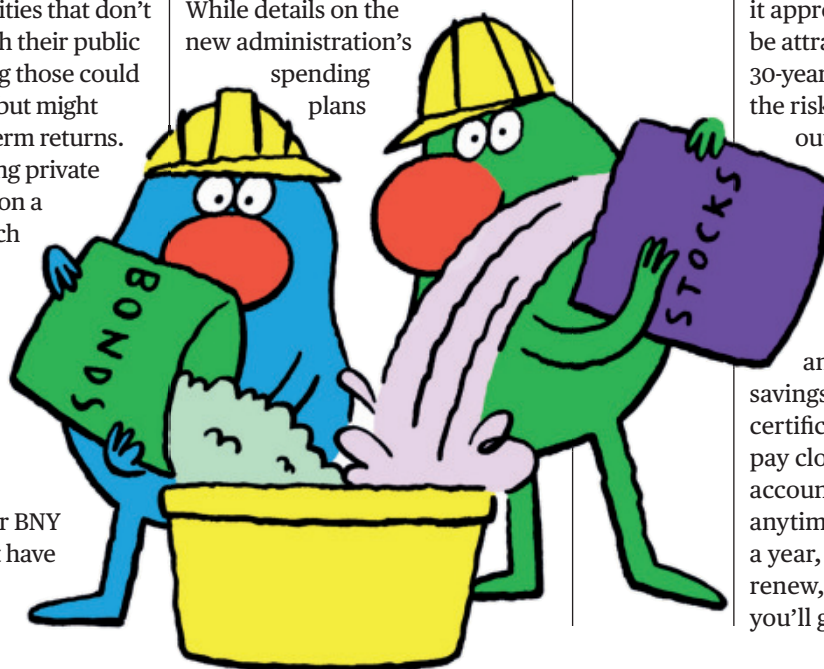
you miss out,” she says. To replicate the performance of a 60-40 portfolio of the late 1990s, she figures, you’d want private assets to account for as much as a quarter of your holdings (page 61).

Not everyone is sold on that idea. Introducing a private allocation into a 60-40 mix “adds complexity and fees, and how valuations are done is a bit of a question mark,” says Jason Kephart, director of multi-asset ratings for Morningstar Inc. The nice thing about a 60-40 approach, he says, is its simplicity, making “it easier for investors to understand and stick with a portfolio over time.”

3

Do Treasury securities make sense if I’m feeling risk-averse? Will we see a return of the bond vigilantes?

Bond vigilantes are big investors who demand higher yields on sovereign debt to express their displeasure at what they consider excessive government spending. While details on the new administration’s spending plans



remain unclear, there are fears that the US budget

deficit will worsen in coming years, which could mean higher yields are in the cards.

The 10-year yield is about 4.6%, which is close to an 18-year high.

So should investors jump at that? Until recently, Leslie Falconio, head of taxable fixed-income strategy at UBS Global Wealth Management, says the firm preferred locking in yields on five-year Treasuries. But with UBS expecting economic growth to remain above trend but slow, and inflation to move lower, grabbing a 10-year yield as it approaches 4.8% to 5% would be attractive, she says. As for 30-year Treasuries, “we don’t think the risk-reward of extending out to the 30-year is prudent at these levels given the volatility and unknowns of policy,” she says.

Granted, 4.6% may not look that great to anyone with a high-yield savings account or a one-year certificate of deposit, which can pay close to that. But savings account interest rates can change anytime. And that CD? After a year, when it comes time to renew, there’s no guarantee you’ll get the same deal. ▶

4

How do I protect my assets against rising prices?

President Trump has pledged to “defeat inflation,” but at the same time he’s pushing for higher tariffs and tax cuts, which could be inflationary. For investors in their 20s and 30s, rising prices may not be a major portfolio concern, as salaries should keep up with price increases over time, and stock values have traditionally risen faster than inflation, says Morningstar portfolio strategist Amy Arnott. “Stocks have been one of the best hedges against inflation in the long term,” she says.

People who want to retire in the next decade or so could consider a dedicated inflation hedge such as commodities, Arnott says. Well-diversified commodity funds might include oil, gas, copper, gold, silver, wheat and soybeans. Few such funds have performed well recently, so if you choose one, Arnott counsels comparing the risk-adjusted returns of similar investments rather than focusing on absolute performance.

For retirees, or those planning to quit working soon (who won’t get salary bumps that help offset inflation), Arnott suggests Treasury Inflation-Protected Securities, government bonds pegged to the consumer price index. Arnott recommends sticking with 5- and 10-year TIPS rather than the 30-year version, which she says is too risky for those who don’t plan to hold them to maturity.

5

Should I add crypto to my portfolio?

With a memecoin-launching president and a Treasury secretary, Scott Bessent, disclosing (and divesting) ownership in a crypto fund, digital currencies are starting to look a lot more mainstream. Investors can now buy crypto ETFs, and tens of billions of dollars have poured into the year-old iShares Bitcoin Trust (IBIT), helping propel the price of Bitcoin up by almost 60% in the six weeks after Election Day.

Yet crypto’s long-term prospects remain exceedingly unclear; Bitcoin, for instance, has retreated recently. So some advisers say investors who insist on adding crypto should keep it below 5% of their portfolio, or less if they’re close to retirement. Matt Maley, chief market strategist for Miller Tabak + Co., says younger people might go somewhat higher, but only if it’s balanced by investments “in stable, reliable

companies with good cash flows. You don’t want 10% in Bitcoin and 90% in tech stocks.”

6

Did the artificial intelligence bubble just pop?

The bull run in AI stocks over the past two years took a big hit in January

as the chatbot developed by Chinese startup DeepSeek forced investors to rethink basic assumptions. Instead of spending billions of dollars on the most advanced semiconductors, which the startup says it couldn’t get, DeepSeek used less costly chips to quickly develop a model that by some metrics seems competitive with those of the US AI leaders. Shares of Nvidia Corp., the company that has so far dominated advanced AI chips, plunged 17% on Jan. 27, hacking off \$589 billion in market value, the largest one-day drop for a single stock in US stock market history.

The prospect of AI that doesn’t need pricey chips raises big questions about the valuations of Nvidia and the

American AI champs gobbling up its products. Analysts are busy scrutinizing DeepSeek’s model to try to verify

its claims and get a read on whether the AI boom in the US has peaked. What is clear is that China has made more progress in the technology than many people thought. Some investment managers see a silver lining in

“If you don’t have private equity and/or venture capital, you miss out”

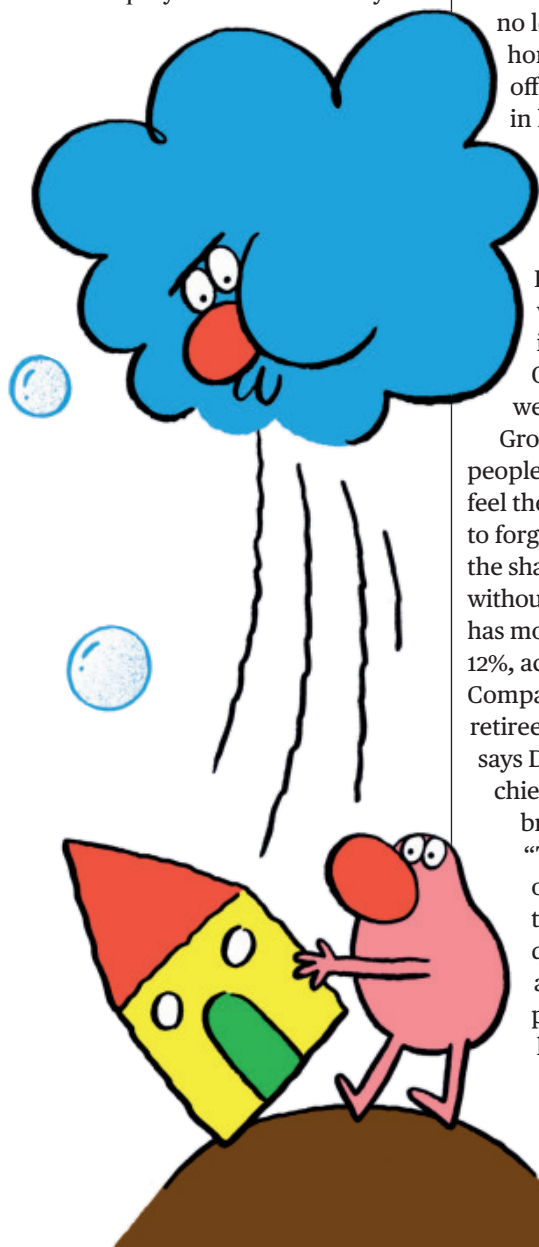


the DeepSeek news, as AI could have a bigger impact if more companies and consumers can afford the technology. Still, high valuations on leading tech stocks have some portfolio managers leery of putting new money into tech and instead favoring undervalued areas of the US market such as health care and consumer staples, or venturing abroad for better value.

7

How much might climate change affect my retirement plan?

The short answer: a lot. For the vast majority of retirees, the equity in their home is by



far their most valuable asset, especially if they've lived there for decades and have paid off the mortgage. Owning your home outright can add security to housing costs, avoiding the wild card of future rent increases. But that logic seems shakier now with increasing numbers of severe weather events pushing home insurance costs ever higher.

Average premiums for homeowners insurance jumped an inflation-adjusted 13% from 2020 to 2023, according to a study of more than 47 million households. But many major insurance carriers will

no longer even write new homeowners policies, or offer only limited coverage, in high-risk areas—particularly in the sunny coastal communities where Americans often spend their golden years. In 2021 about 13% of all voluntary home and fire insurance policies in California, for example, weren't renewed.

Growing numbers of older people with scant cash apparently feel they have no choice but to forgo coverage. Since 2019 the share of Americans going without homeowners insurance has more than doubled, to 12%, according to the Insurance Company Institute. "It puts retirees in a difficult position," says Daryl Fairweather, chief economist at real estate brokerage Redfin Corp. "They either have to take on a high monthly cost that might be increasing quite a bit, or go without and save money—but put themselves at risk of losing their home."



8

Will housing become affordable anytime soon?

With the rate on a 30-year fixed mortgage at about 7%, many buyers are priced out of the market. And current homeowners with older loans at 3% or 4% have little interest in selling if that means a new mortgage at today's levels. There's not much chance of mortgage rates falling back closer to 6% anytime soon, either, as the Trump administration is pursuing a raft of potentially inflationary policies, says Mark Zandi, chief economist at Moody's Analytics.

Vacancies in less expensive homes—those under \$400,000—stand at about 1%, close to historical lows. That augurs continued high prices for both single-family home sales and rentals, Zandi says. Don't expect new construction to keep pace with demand, as immigrants (yes, those people at risk of deportation under Trump) account for almost a third of construction workers, and about half of them are undocumented. "Housing is going to remain decidedly unaffordable," Zandi says, "this year and for the foreseeable future." **B**

"You don't want 10% in Bitcoin and 90% in tech stocks"



Grandma's Gold Necklace Is India's Retirement Plan

In a place with scant formal retirement support, the precious metal often takes the place of social security

By Preeti Soni

Saroj Kanwar Deora lives in a two-room brick house in Jodhpur, a city of 2.2 million about 15 hours north of Mumbai by train. She quit school after fifth grade. Now in her late 40s (she's not sure of her age), she's spent most of her adult life as a seamstress and cooking carryout meals for laborers working nearby. She haggles with street vendors over even a few rupees.

Her one indulgence is gold. She has necklaces, headbands, bracelets, rings and more, a few stashed in her house in places she won't reveal, but most held in a safe-deposit box at a local bank. "It started with my mother's wedding gifts," she says, showing off her latest purchases in a small bedroom adjacent to her kitchen. "She was poor, but she managed to give me gold earrings and anklets."

The gold passed down from her mother and the pieces she's bought over the decades aren't just ornaments. For years, she's squirreled away every spare rupee to buy the precious metal, creating what's effectively a retirement fund. "Sometimes I tell my husband that I've spent 50 or 100 rupees more than I did on groceries, and I set it aside," Deora says.

Indian households own about 25,000 tons of gold, roughly five times what's stored in the US depository at Fort Knox. Those holdings—most of it in rural backwaters—are valued at more than \$2 trillion, the largest private gold stash on Earth.

India's passion for gold dates back centuries, even millennia. In a place with little in the way

of formal retirement support, it serves as health insurance, social security and a legacy for the kids, all wrapped in one. Government data show that only about 73 million of India's 1.4 billion citizens have any kind of formal pension, leaving hundreds of millions dependent on whatever they can save for their old age.

Indians of all classes spend almost 20% of their income on the metal, according to the India Gold Policy Centre, a research group in Ahmedabad. Even the poorest urban slum dwellers will buy gold with any extra money they manage to set aside. And when the monsoon is strong, farmers across the country boost their purchases. "Everybody should have gold," says Pappu Devi Jawa, a retired street sweeper in Jodhpur. "It's our safety net."

Few in rural India have ever heard of, let alone own, mutual funds or other investment vehicles. So they turn to their local jeweler. While Indians rarely admit any plans to sell their gold, it's always there if they need it. Goldsmiths typically make their sales with a promise to repurchase the gold—or offer a loan against it—if a customer falls on hard times. "The mentality is that you own your destiny," says Sachin Jain, the India chief of the World Gold Council, a London-based trade association. "The concept that somebody will pay you after you stop working doesn't exist in rural India. Gold is the only instrument that they try to buy."

Virtually every Indian city and town has a jewelry market centered on artisans working

Clockwise from top left: Deora's gold stash began with a wedding gift from her mother; traditional armbands and bangles at Naveen Soni's shop; Jawa, at her home in Jodhpur, hopes to pass gold jewelry to her family; adjustable bracelets with diamonds





MAKING PRIVATE MARKETS LESS PRIVATE

As leader of one of the world's largest independent investment management firms, Invesco CEO Andrew Schlossberg and his 8,500 colleagues feel a great responsibility for managing the assets of millions of people around the world.

"That's a really noble cause," Schlossberg says. "These are people's retirement assets. They're funding education for their children or buying a home, and so being able to deliver for them is really rewarding."

What's exciting for Invesco is helping individual investors access new opportunities in private markets, where Invesco manages around \$130 billion in assets for institutions.

Wells Fargo is an essential partner for Invesco in delivering for individual and institutional clients across a wide range of products and services, from commercial real estate to foreign exchange trading.

"Invesco's one of the most sophisticated financial firms in the world," says Dan Thomas, Co-Head of Markets, Wells Fargo Corporate & Investment Banking. "As we meet Invesco's needs as a client of Wells Fargo, that's really a good measure of the success we're having in building out our corporate investment bank."

Andrew Schlossberg
President & CEO
Invesco



From top: Deora showing earrings she bought for her daughter; a headband she inherited from her mother-in-law



■ PHOTOGRAPHS BY ABHISHEK KHEDKAR FOR BLOOMBERG BUSINESSWEEK

◀ with gold. In Jodhpur, it's Sunaro Ka Bas (or "Goldsmith's Residence"), a jumble of tiny lanes filled with small storefronts attached to homes. Here the art of transforming raw gold into intricate jewelry is passed from generation to generation in cramped workshops where just one or two people carve traditional designs. "The journey of gold starts at birth and continues beyond death," says Naveen Soni, the regional head of the India Bullion and Jewelers Association, a trade group. He inherited his father's shop almost three decades ago and is now training his son to manage it.

Most people maintain a relationship with a jeweler that lasts decades—a vendor who can give them what they consider sound investment advice and allow them to make layaway purchases. And goldsmiths will often offer customers a discount for buying exclusively from them. "The entire business is based on trust," says Nirmal Katawa, a goldsmith in Jodhpur. "From grandparents to grandchildren, we have multiple generations coming in."

At weddings, gold symbolizes the couple's future prosperity, with the bride's family presenting her with gold at a ceremony a day or two before the nuptials. Although dowries have been banned since 1961 to curb domestic violence, these traditions have supplanted them, sparking debates about their legality.

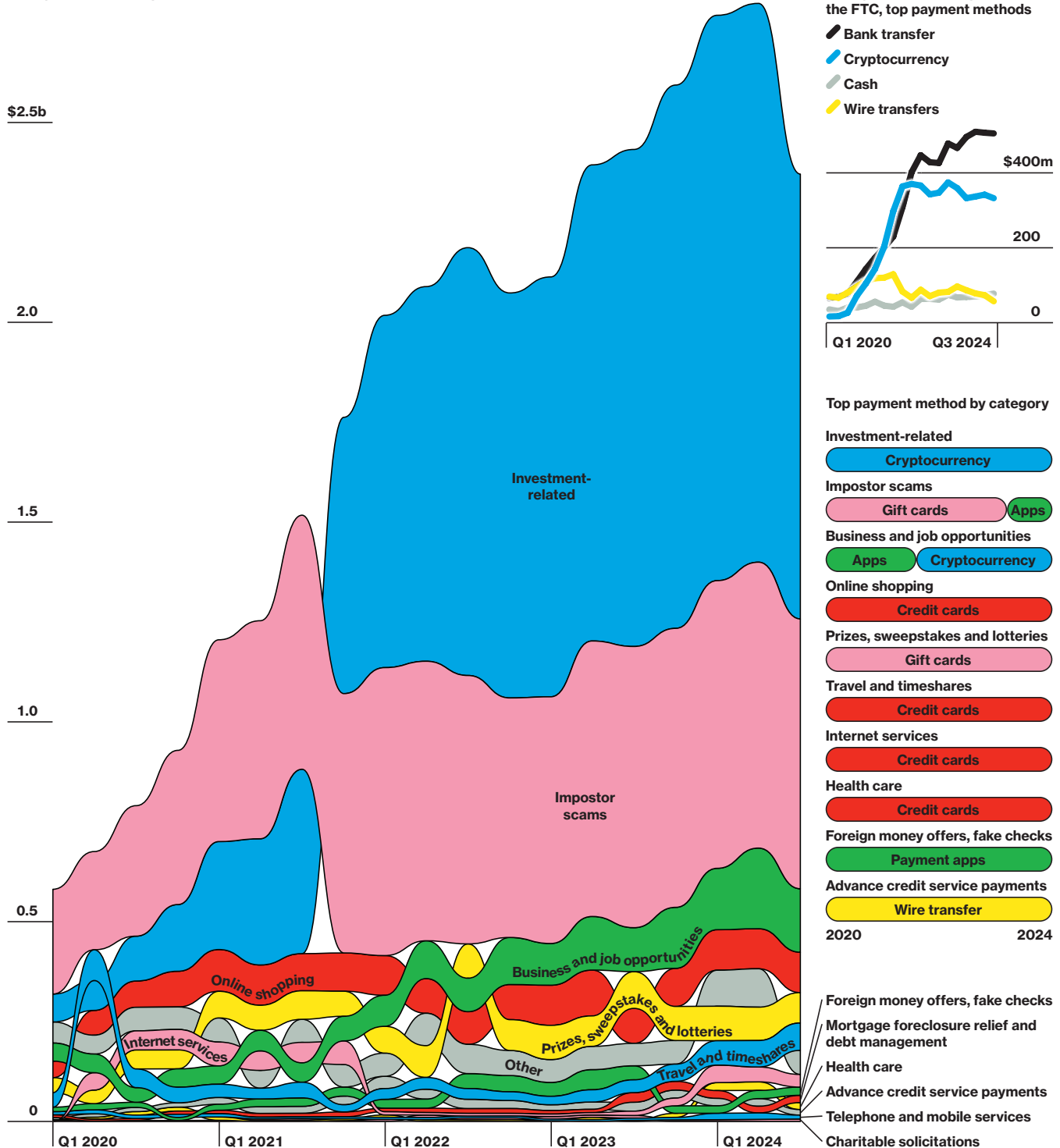
For those who never need to tap into that emergency fund, the ultimate goal is to pass it on to the next generation. Deora has already given two of her three daughters wedding gifts of necklaces, earrings and chains that represent years of her savings. And she's set aside other items for her youngest daughter. "It's for the future," she says. "Our future." **B**

A Bull Market for Fraud

By Dorothy Gambrell

It's no secret that the Digital Age has been good for scam artists. In the third quarter of 2024, the most recent period for which US government data is available, scammers contacted the most targets over email (around 100,000), but the largest loss of money was from people tricked on social media (\$442 million). Colorado was the leader in impostor scams, but investment fraud happened most in Hawaii. Buyer beware.

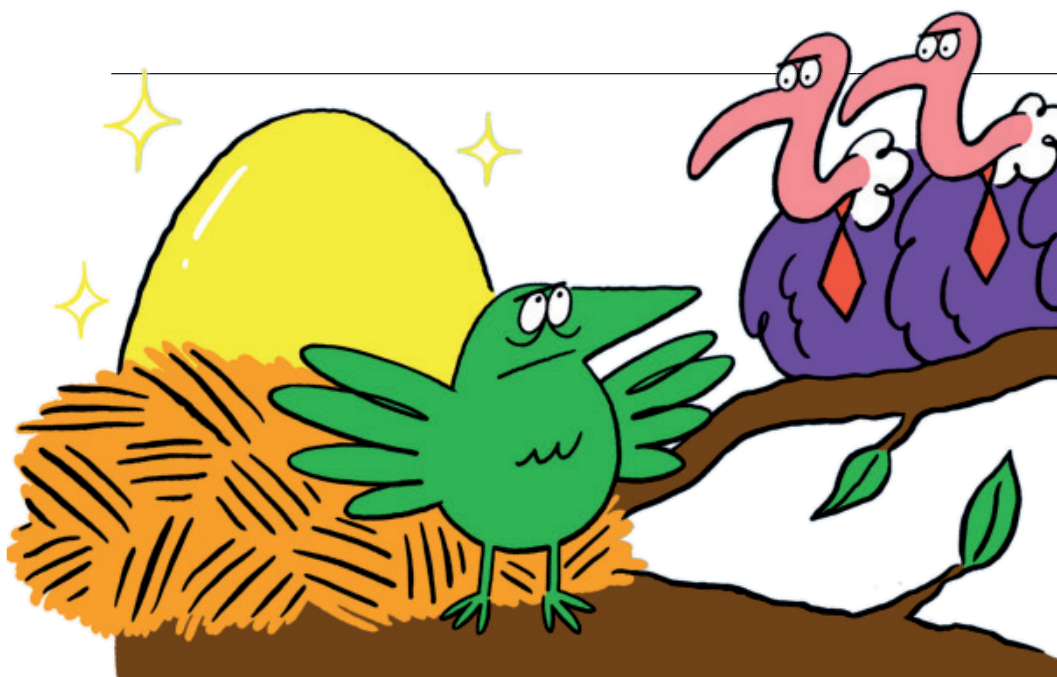
Money lost in fraud reported to the Federal Trade Commission



Private Equity Wants Your Nest Egg

Alternative investment shops want to tap the trillions of dollars in retirement accounts

By Loukia Gyftopoulou and Allison McNeely



Private equity has long been an exclusive club, a world of opaque funds and high fees where only the wealthiest and most sophisticated investors can gain a foothold. Its allure lies in its promise of blockbuster returns: daring financiers pile up mountains of debt to buy companies, then attempt to revive them—with scant oversight. Now those same firms want a piece of your nest egg.

Seeking to tap the trillions of dollars in brokerage accounts held by everyday investors, these companies are cozying up to traditional asset managers. Alternative investment shops, which specialize in asset classes outside public stocks and bonds, have been touring mutual fund houses to gauge their interest in tie-ups that would dramatically extend their reach. “There’s a lot of conversations,” says Russ Ivinjack, global chief investment officer at consulting firm Aon.

Collaboration makes sense for both sides. The alternative firms suffer from anemic brand awareness beyond Wall Street, and they lack the vast sales teams needed to raise their profile. A few years back, Bain & Co. asked wealthy individuals to name three alternative asset managers; the top response was “I don’t know,” followed by old-guard financial powerhouses such as Fidelity Investments, Vanguard Group and Charles Schwab.

Those icons of the 100-year-old mutual fund industry, meanwhile, are in need of some new energy as customers abandon their bread and butter—actively managed investments—for funds that simply track various stock indexes, where the fees are racing toward zero. So just as the alternative shops are rolling out retail investments that they say offer the returns of private assets and diversification away from

“These models haven’t been tried out before”

public markets, the traditional firms have been eyeballing the world of private equity.

In recent years private equity has dipped its toe in with funds offering greater liquidity because they don’t lock up investor cash for years, but these were marketed only to wealthy individuals. Now, through their tie-ups with traditional asset managers, they promise even-more-liquid offerings—including some exchange-traded funds—for the masses. Those are seen as a test case for broader distribution, with the ultimate goal of tapping into the \$12 trillion held in retirement funds such as 401(k)s and IRAs.

Last May, alternative asset giant KKR & Co. linked up with Capital Group, an investment firm that manages more than \$2.7 trillion in assets, mainly in equity and bond funds. They have announced a pair of jointly administered products that will invest in both public and private debt. And State Street Global Advisors, which manages \$4.7 trillion in client money, in September jumped in bed with Apollo Global Management Inc. for a listed fund to invest in private credit—loans made by nonbank lenders—alongside the public bonds more typical of its offerings.

BlackRock Inc., the world’s largest asset manager, in September teamed up with PE firm Partners Group to focus on products for retail investors. That deal came amid a pair of acquisitions that helped bolster BlackRock’s private equity and credit portfolio. “We’re seeing a lot of experimentation,” says ▶

◀ Hugh MacArthur, chair of Bain's private equity practice. "These models haven't been tried out before."

Lawyers and consultants working on such tie-ups say many more are on the way, but myriad questions remain. It's not clear, they say, how well private and public assets can work alongside each other in a single fund, how liquidity can be guaranteed or how profits might be split. A regulatory filing by State Street regarding its partnership with Apollo spurred the Consumer Federation of America to write regulators raising concerns about liquidity, valuation and conflicts of interest.

Some in the business question the logistics of partnerships between companies with completely different playbooks, worrying about their ability to communicate effectively. And if it's ever to become a part of retirement funds, private equity may have to reduce its fees to win widespread adoption, says Will Hansen, a lobbyist for the American Retirement Association, a trade group of financial and advisory professionals. "It all comes down to complexity, liquidity, cost and education," he says.

Some traditional asset managers fret about the reputational risk of such investments. Private equity can retreat to its successful niche of managing illiquid investments. But the standing of mutual fund houses, whose names will be on the new products, will be on the line, and a high-profile blowup could taint an image built over decades. Everyone involved is "dedicating significant resources trying to figure out how to successfully create suitable products," says Lawrence Calcano, chief executive officer at alternative investments platform iCapital. "We're all interested." **B**

The Tax Loophole To Watch

How the SALT deduction could upend Trump's tax reform plans

By Ben Steverman

Over the coming months, President Donald Trump and his congressional allies will try to rewrite the nation's tax laws, with promises of cuts for companies, workers and retirees. There are trillions of dollars on the line with those changes. But a certain segment of Americans will be focused on just one question: How much of their state and local taxes (SALT) will they be allowed to deduct?

Trump's 2017 tax revamp capped the so-called SALT deduction at \$10,000, a significant blow to affluent taxpayers in high-tax states. Many still haven't gotten over it, a political reality Trump acknowledged while campaigning last year on New York's Long Island, where he promised to scrap the cap. What many in the Nassau Coliseum audience didn't know is that some of their wealthy neighbors have been freely deducting their SALT all along. An unintended loophole, which some argue isn't a loophole at all, delivers about \$20 billion a year in tax benefits to a narrow slice of Americans. That's enough for these SALT workarounds to figure prominently in the complex political and fiscal calculus facing Republicans this year.

The resistance to the cap began months after the 2017 tax overhaul, when Connecticut passed a law deploying a novel strategy to restore unlimited deductions for certain businesses. So far, 35 other states, including California, New Jersey and New York, have followed suit, the number surging after the Department of the Treasury signaled it wouldn't challenge the loophole's legality

in the closing days of Trump's first term. "The workarounds are basically a magic wand that allows you to avoid the tax hike from the SALT cap," says Matthew Gardner, a senior fellow at the progressive Institute on Taxation and Economic Policy (ITEP).

Only business owners can exploit the workaround—and only in certain circumstances. Corporations already deduct unlimited SALT under different rules. The loophole also doesn't work for the simplest businesses. If, for instance, you run a taco stand as a sole proprietor, its profits and losses automatically flow up to your personal tax return. Like 99% of the population, you get to deduct only \$10,000 of SALT.

Own that taco stand with a partner, however, and states' so-called pass-through entity taxes allow your business to deduct its full SALT expenses before passing on profits to its owners. When you report those business earnings on your personal return, your taxable income is lower than it would have been without the loophole—cutting your bill to the federal government. States grant you a credit for the taxes your business has already paid on your behalf, so you're not double-taxed.

It's lucrative if you qualify, especially in states with higher taxes. For the richest taxpayers in the highest-tax states, it can theoretically shave 3 or 4 percentage points off their effective federal rate. Data from California and Maryland, two of the only states that have released information, suggest a mere 1% of taxpayers are using

\$10k
The maximum amount that 99% of the population can deduct for SALT

workarounds. “It’s a remarkably unfair and inequitable tax break,” says ITEP’s Gardner.

Republicans in Congress are looking at banning the workarounds, one of hundreds of ideas for raising revenue or cutting spending that the House Budget Committee compiled in January. They’ll need the money. Just extending provisions of the 2017 tax law that are set to expire next year for a decade would add \$4 trillion to \$5 trillion to the national debt, according to the Committee for a Responsible Federal Budget (CRFB). And keeping even some of Trump’s other tax promises, which include not only scrapping the SALT cap but also eliminating taxes on tips and Social Security and lowering rates on businesses, will cost trillions more.

With the GOP holding only slim majorities in the House and Senate, the key to passing any bill will be an intricate series of trade-offs. Few believe Trump’s promise to restore the unlimited SALT deduction is possible, but raising the cap is considered “an obvious, nonnegotiable necessity,” says Rohit Kumar, national tax office co-leader at PricewaterhouseCoopers LLP. If not, key House Republicans from New York and elsewhere are vowing to withhold their votes. “So that raises the question of whether there are ways to pay for it inside the individual SALT deduction world,” Kumar says.

While every tweak to the tax code creates winners and losers, changes to SALT are especially consequential. Lifting the cap to \$15,000 for singles and \$30,000 for married couples would result in

lost revenue of \$530 billion over 10 years, the CRFB estimates.

Plugging the SALT cap workarounds could help make that up, raising \$180 billion, but business lobbyists are already crying foul. “What we’re trying to do right now is just dispel this notion that there’s somehow this pass-through loophole,” says Brian Reardon, president of the S Corporation Association. His members, privately held businesses that file taxes under so-called S corp rules, rely on the workarounds, while competitors—traditional corporations, or “C corps”—have long been able to deduct SALT under their own set of rules. Banning the workarounds means that “if I’m the hardware store in my neighborhood, I can’t deduct SALT, but Home Depot can,”

Raising the SALT cap would result in hundreds of billions in lost revenue

Reardon says. “It’s just not fair.”

Some in Washington are listening: Another revenue-raiser under consideration is extending the SALT cap to cover big companies and other C corps, which the CRFB estimates could raise an additional \$210 billion.

Despite Trump’s vow last year, capping SALT deductions appeals to conservatives in his party, who argue unlimited deductions subsidize higher-tax states. The individual SALT cap also hit affluent professionals hardest, a group that’s disproportionately voted for Democrats. The more businesses a SALT limit includes, though, the more lobbyists get pulled into the fight. Republicans would be raising taxes on key GOP constituencies that won big with the 2017 law. It also wouldn’t have the same effects as the original SALT cap, which boosted incentives for taxpayers to relocate out of high-tax states like New York and California.

Businesses rarely get the same tax savings from moving, because state taxes are typically based on where your sales come from, not where your headquarters or employees are. “You’re paying the tax no matter what,” says John Bonk, managing director at accounting firm CBIZ Inc. “It’s hard to say, ‘We’re not going to ship to customers in New York.’”

It could take months to resolve these disputes and come up with a plan. Do nothing by the end of the year, and much of the 2017 tax law disappears, returning individual rates to pre-Trump levels. Republicans are determined to avoid that possibility, but there would be a silver lining for people eager to stop paying for Trump’s blow against wealthy blue states: unlimited deductions of state and

local taxes for everyone in 2026. **B**



The Art of 'Finfluencing'

It may be coming from unconventional sources, but financial wisdom is extremely popular online

By Charley Locke

Make room, Suze Orman and Jim Cramer, for a new generation that has access to a camera and knowledge to share. These personal finance gurus dispense money advice to audiences of millions through Instagram, TikTok and YouTube, often with very specific groups of viewers in mind. Meet the "finfluencers" of 2025.



Name: Vivian Tu
Tagline: "Your favorite Wall Street girly"
Handle: @your.richbff
Follower count: 3.3 million on Instagram, 2.7 million on TikTok, 1 million on YouTube
Description: When Tu started working as a trader with JPMorgan Chase & Co., she felt lucky to make it on Wall Street as a millennial woman and the daughter of immigrants. After a couple of years, she claims she quit because of discrimination—her manager told her she was "too girly" for the work.



Name: Erika Kullberg
Tagline: "Erika taught me! She's a lawyer and reads the fine print so I don't have to!"
Handle: @erikankullberg on Instagram, @erikakullberg on TikTok, @Erika2 on YouTube
Follower count: 5.4 million on Instagram, 9 million on TikTok, 2.3 million on YouTube
Description: Fans follow Kullberg for her endless tips on how to shamelessly get free stuff, including new AirPods. She also shows how to save money on credit card theft protection clauses, get substantial compensation for being bumped from a flight and even buy a Build-a-Bear for \$1.



Name: Tori Dunlap
Tagline: "Fight the patriarchy, get rich"
Handle: @herfirst100k
Follower count: 2.2 million on Instagram, 2.4 million on TikTok, 16,000 on YouTube
Description: For Dunlap, the first step toward becoming a multimillionaire was saving \$100,000 by age 25, and she wants other women to do the same. In her videos she encourages them to have more open conversations about money.



Name: Anthony O'Neal
Tagline: "The Table w/ AO"
Handle: @anthonyoneal on Instagram and YouTube, @_anthonyoneal on TikTok
Follower count: 472,000 on Instagram, 176,000 on TikTok, 848,000 on YouTube
Description: On his social media accounts and podcast, the influencer interviews people about their financial experiences—building a successful vending machine business, navigating a shared budget after marriage, dating on a budget—and offers actionable lessons to his audience.



Name: Humphrey Yang
Tagline: "Personal finance and investing for beginners"
Handle: @humphreytalks
Follower count: 641,000 on Instagram, 3.3 million on TikTok, 1.6 million on YouTube
Description: Yang is a former financial adviser at Merrill Lynch, but in his videos, he often plays two other characters: an earnest, clueless guy and his money-savvy friend, who patiently explains financial concepts to his buddy. Yang has helped his followers understand call options through the analogy of putting a Lululemon jacket on hold and explained stock splits by likening them to thinly sliced pie.

■ DUNLAP: WASHINGTON POST/GETTY IMAGES; KULLBERG: COURTESY SUBJECT; ONEAL: AO ENTERPRISE; TU: JUTHARAT PINVODONVACHET/NEW YORK TIMES/REDUX; YANG: ROSS MONTIRE

SPONSORED CONTENT

Presented by



HSBC



Bloomberg Media Studios

TURNING POINT

THE SHIPPING OPPORTUNITY

Paper documents are easy to forge, frequently lost, and add days to every shipment. Yet they still keep the \$25 trillion global cargo trade afloat, with four billion pieces of paper documentation estimated to be in circulation at any one time.



ADDRESSING A PARADOX

For Global Shipping Business Network (GSBN), paperless trade is more than an opportunity to modernize analog processes. Crucially, it will enable data to flow more seamlessly across the dozens of intermediaries involved in a single shipment.

LEARNING EARLY LESSONS

With most of the world locked down and looking for digital solutions, timing was in GSBN's favor when it finally opened for business in early 2021.

That same year, GSBN launched its first blockchain-enabled, paperless solution: Cargo Release, which reduces the time for cargo to be released from days to hours.

While Cargo Release rapidly attracted over 10,000 customers globally, it was difficult to scale because of variations in terminal operations. "What's important in Shanghai, for instance, is completely immaterial in Rotterdam," notes Chen.

BUILDING THE FUTURE

Another crucial step after building trusted tools to exchange data is finding out where that data could lead: sharing carbon footprint data to enable the shipping industry to decarbonize, or sharing information pertaining to dangerous goods.

STAYING THE COURSE

But getting the world's first independent, blockchain-based shipping consortium off the ground was challenging. At the time of inception in 2018, 13 shipping lines and terminal operators with a significant share of global trade had committed to setting up GSBN. Upon incorporation three years later, only eight remained.

In hindsight, Bertrand Chen, chief executive officer of GSBN, considers the drop-off a blessing in disguise, leaving only those with a high degree of confidence and patient capital. "Not everybody needs to see the vision – you don't need everyone to agree with you to start something," says Chen.

WORKING TOWARD ONE MILLION

For a consortium which "always has a couple of ideas brewing," electronic Bill of Lading (eBL) became the way forward.

Despite major doubts when a close competitor folded in 2022, GSBN pushed through. The catalyst for eBL came the following year, through global policy support and industry momentum.

"For us to get to the next level of one million and beyond, eBL needs to go further than just the shipping industry. Working with HSBC has been great in understanding how we can rewrite trade finance, and how they're thinking about the next model," says Chen.

Business is rarely a straight line.

Wherever it takes you, HSBC can help.



**Walmart CEO
Doug McMillon**
is trying to convince
shoppers that
his stores are
fashionable. And
convince talent that
Bentonville is the
new Austin. And
convince Trump
that the global
retail colossus is as
American as it gets.
The selling seems to
be working.
So far

Every Day Low Price

**By Jaewon Kang
and Devin Leonard**

**Photograph by
Vincent Tullo**



problems

It's been part of the job for every chief executive officer of Walmart for the past half-century to work with US presidents, and for Doug McMillon, Donald Trump's first tour in the White House was no different. The two got to know each other during the Covid-19 pandemic, when Walmart secured masks and gloves for the public and turned its store parking lots into testing sites. But that didn't stop the CEO of the world's biggest retailer, whose political credo might best be described as thou shall do nothing to alienate the customer, from speaking out on measures he disagreed with. McMillon condemned Trump's response to a violent 2017 protest in Charlottesville, Virginia, saying "he missed a critical opportunity to help bring the country together by unequivocally rejecting the appalling actions of white supremacists." He registered his disappointment again when Trump was accused of instigating the deadly riots of Jan. 6, 2021, lamenting that Americans had been divided by what he described as "the fiction of a fraudulent election."

But when Trump won a second term on Nov. 5, McMillon adopted a more conciliatory tone. That same month, to the dismay of some investors and employees, Walmart announced it had shed some of its diversity, equity and inclusion policies. (Walmart Inc. says this change had been in the works prior to the election.) Then McMillon joined the cavalcade of business leaders who made the pilgrimage to Mar-a-Lago. He says his message to Trump was simple: "How can we be helpful?"

McMillon said this at his office at Walmart's soon-to-be former headquarters in Bentonville, Arkansas, in January. At the time, Trump's inauguration was only three days away. McMillon wasn't sure he'd be attending. "I was invited," he said without much enthusiasm. "With it moving inside, the seats got cut in half. So I don't know if I'm still invited." The following Monday, he was there, though not in the VIP section with Elon Musk, Mark Zuckerberg and Walmart's longtime nemesis, Jeff Bezos. With a resurgent Trump back in the Oval Office, it would have scarcely benefited the chief executive

officer of the world's largest retailer to have been a no-show.

Trump hasn't exactly been bad for Walmart, as a quick perusal of its website suggests. There you'll find an array of Trump items, including "Make America Great Again" trucker hats, "Trump King of USA" socks, "Trump 2028 I'll Be Back" beach towels, "Daddy's Home" T-shirts and books such as *The Beautiful Poetry of Donald Trump*. Most of these items are found at Walmart's rapidly growing third-party online marketplace.

That Walmart now has this kind of e-commerce engine full of Trumpian baubles—along with fancy sneakers, refurbished electronics, pre-owned Chanel, Fendi and Prada handbags, and a fair amount of Biden-Harris memorabilia—is a testament to how dramatically McMillon has been able to transform the company after becoming its CEO in 2014. A four-decade Walmart veteran who started out unloading trucks, he's taken a business once considered to be an internet-clueless dinosaur and sold it to Wall Street as an e-commerce power with not only an online marketplace, but also a rapidly growing advertising business (Walmart Connect) and a Prime-like subscription offering (Walmart+), whose free same-day delivery is possible because 90% of Americans reside within 10 miles of one of its stores.

McMillon is now also pitching the retailer synonymous with rock-bottom prices as one that can cater to wealthier shoppers, too, even in an inflation-weary age. Since 2021, Walmart has remodeled 2,000 of its more than 4,600 US stores, many of which have long been unabashedly downscale, into cheerier places with wider aisles, better lighting and improved signage. Last April it rolled out a fancier private-label food line with branding that could have been hatched in a Brooklyn lab—Italian carne pizza baked in a "lava-stone, wood-fired oven," "authentic French" macarons from an almost century-old family bakery and no shortage of plant-based fare. Customers can also find midi shirtdresses and denim utility jackets conceived with the help of Brandon Maxwell. The designer, who's dressed everyone from Michelle Obama

to Karlie Kloss in frocks that typically sell for more than \$1,000, now oversees Walmart's more fashion-forward in-house clothing brands. If some of this seems lifted from the Target Corp. playbook, that should come as no surprise: Two executives toiling on the store redesign previously worked at Walmart's Minneapolis-based rival.

But McMillon's most audacious sales job might be his campaign to lure talent to Bentonville. For decades, its top executives ran the company out of an old warehouse, emphasizing that such no-frills digs demonstrated their commitment to keeping costs low. In January, however, McMillon presided over the opening of a 350-acre Walmart campus that looks like an offshoot of the Googleplex. The new spread is still unfinished, and, as of



January, many of the senior executives, including McMillon, had yet to move in. But once it's completed, Walmart's new home will include 12 renewably powered office buildings with windows scrubbed by drones, a fitness center complete with meditation rooms and pickleball courts, and a bougie suburb's worth of walkable shops and restaurants, featuring a brewery, a bike store, a tapas bar, a sushi place and a coffee shop serving up items like salted honey oat milk flat whites.

Such a monumental project with a multibillion-dollar price tag might seem wildly incongruous in Bentonville. Two decades ago, it was ensconced in a dry county and had a downtown that looked very much as if it had been hollowed out by a Walmart superstore or two. Now it has an Austin-in-the-Ozarks vibe.

Just watch out for the e-bikers whizzing around town, many of whom look suspiciously like coastal transplants.

Perhaps the biggest surprise of all is the degree to which McMillon's salesmanship has paid off, particularly at a company whose very size has made it susceptible to stagnation. Almost a decade ago, Walmart trailed not only Amazon, but also eBay and Apple in online sales. Under McMillon, it's become the world's second-largest e-commerce company, with online sales this year expected to reach \$115 billion, according to eMarketer. That's not even a quarter of Amazon's expected \$531 billion, but Walmart is catching up. Higher-income shoppers also seem to be giving it another look; the company says 75% of last fall's market-share gain came from

those with an annual income of more than \$100,000. More store employees are staying at the company, a result of its recent investments in higher wages and better benefits, with some of its most successful store managers earning more than \$600,000 each year. It's wooed executives from Google and Amazon. And last year, Walmart's shares rose by an astonishing 72%, outpacing those of Costco, Kroger and Target.

One wonders what Walmart's founder, Sam Walton—a notorious penny-pincher who once warned that “every time Walmart spends a dollar foolishly, it comes right out of our customers' pockets”—would have made of all this. But it's McMillon's Walmart now. “I give him my Nobel Prize,” says Ram Charan, the famed business consultant and speaker. “He's quiet, he doesn't talk too much, and he's been able to build Walmart into a new high-growth engine.”

McMillon may have staved off its extinction, but perhaps no American retailer has more on the line with Trump back in the White House. The president's promise of mass deportations raises the specter of raids at large employers, and his onslaught of tariffs will almost certainly make it harder for Walmart to honor its low-price promise. With an isolationist mandate in Washington, it's probably best for McMillon to portray Walmart as the quintessential American company, always its preferred pitch, even if it's the quintessential globalized business, with more than 10,600 stores worldwide and supply chains circling the world, including in China.

He has to figure out how to be a CEO who doesn't put himself in ►



1 A Neighborhood Market—a smaller-format shop that sells primarily groceries—in Bentonville

2 A store in Secaucus, New Jersey, displays some of Walmart's increasingly fashionable clothing



◀ the crosshairs of controversy with anyone—his employees, his customers or the president. “Our attitude is, we’re here long term,” he says. “We’re a large employer. We serve a lot of people. We want the country to thrive.”

Until now, every Walmart CEO has inherited Sam Walton’s former office in the company’s soon-to-be-vacated legacy headquarters. With its wood-paneled walls, dim lighting and first-floor view of the parking lot, the room looks more suitable for the head of a regional trucking company than the steward of a global retail colossus. Yet McMillon seems comfortable enough here late on a Friday afternoon, sitting back in a chair, legs crossed, in a blue shirt, gray pants, and black shoes that look like they could have been purchased at one of his stores. The books on the shelves behind him seem to have been selected to convey a sense that he’s not just a retail practitioner but someone who’s read and thought deeply about his trade. They include many about Walmart; some about rivals Amazon, Kmart and Target; and others about social issues such as Isabel Wilkerson’s bestselling *Caste: The Origins of Our Discontents*.

The same shelves also hold conversation pieces, allowing McMillon to share folksy stories about how he’s occasionally blundered but has always come away wiser for it. He grabs a football dating to his time as head of Sam’s Club, explaining how he pushed his executives to buy as many as possible only to be chagrined when they arrived with black laces that customers didn’t want. “We marked them all down,” McMillon says. “So attention to detail is the lesson there.”

He talks about how he felt on his first day as CEO when faced with the prospect of moving into the same office where Walmart’s founder once held court. He says he was so spooked that he put it off for a day, going out and visiting stores instead. “It’s pretty intimidating,” McMillon says. “I mean, Sam was legendary.”

Walton founded the company in 1962, and it eventually eclipsed Kmart and



3 The ribbon-cutting ceremony at the first store’s opening, in 1962 in Rogers, Arkansas

4 The original store in the 1970s

5 Founder Sam Walton in 1992

6 McMillon (second from left) working in the early 90s as a Walmart snacks and soft drinks buyer

Sears to become the country’s largest retailer. He could be pitiless—as far as he was concerned, putting mom and pop stores out of business meant they weren’t doing a good enough job. Before his death in 1992, he’d become a folk hero: One of the country’s richest men, he still drove around his small-town home in a dented Ford pickup and kept a shotgun in his office in case he needed to leave in a hurry to hunt quail. Never mind that, in his final years, he resided in a breathtakingly stylish modern home designed by a local disciple of Frank Lloyd Wright. It was good to be Sam.

By the aughts, however, Walmart’s shares had plateaued. Comparable-store sales, a critical metric in retail, dipped. Checkout lines were unending. “There was just this perception at the time that you’d never go to Walmart, or you’d go and you’d never find anything, or it would be just a service disaster,” says Ron Thurston, author of the book *Retail Pride*.

Walmart fought off unionization efforts in the US, but that didn’t stop labor leaders and their allies from highlighting the company’s then-lower wages and dismal benefits. Its critics coined the term “the Walmart Effect” to describe how, they argued, it was impoverishing small towns and forcing suppliers to move their operations overseas. Perhaps the lowest point for the company came in 2012, when the *New York Times* reported that it had bribed officials in Mexico. (Walmart ultimately paid nearly \$283 million in criminal and civil penalties to US federal authorities to resolve the charges in 2019.)

And in what might best be described as a classic business school cautionary tale, Walmart whiffed spectacularly on the internet. It introduced walmart.com in 2000, but there always seemed to be members of the leadership team who feared that if they moved too quickly to sell stuff online, they’d cannibalize the stores. “There was a pretty significant and influential pocket within the company, even then, that was not convinced Amazon was indeed a threat,” says Venky Harinarayan, co-founder of Kosmix, a search startup Walmart bought for \$300 million in 2011.

When McMillon took over as CEO,

his résumé hardly suggested he'd be the company's savior. After graduating in 1985 from Bentonville High School, where he was voted Most Attractive, he went to work at a local Walmart warehouse. He says he remembers being impressed by a poster over the recruiting desk depicting a Walmart tractor trailer running a Kmart vehicle off the side of a mountain. "I'm like, huh, this is a competitive spot," McMillon says. "I like that."

He got his MBA at the University of Tulsa in the early '90s and returned to Bentonville to become a Walmart buyer, where he soon witnessed how e-commerce was beginning to upend retail. "It was very clear to me that that was a really important part of the future," he says. "There were debates internally as to how aggressive we should be, and I was always on the aggressive side."

He was promoted to CEO of Sam's Club in 2005. Four years later, he became CEO of Walmart's international division, and saw how quickly consumers in China were embracing shopping with their phones. By then he was being talked about as a possible candidate to succeed company CEO Mike Duke. When it finally happened in 2014, McMillon says, the first thing he did to get sales growing again was raise wages.

At the time, many of Walmart's workers were making less than \$9 an hour. In early 2015, McMillon announced a plan to increase starting hourly pay to \$10. That October, he stunned investors by telling them it would cost \$2.7 billion. He tried to soften the blow with a \$20 billion share buyback plan. It didn't work. That day, Walmart lost 20% of its market value, and McMillon was excoriated on CNBC by *Mad Money* host Jim Cramer. "Maybe you need every penny to beat Amazon," Cramer lectured him. "Maybe the stock's not a good investment."

The stock recovered, and McMillon set out to banish the notion within Walmart that Amazon could be ignored. "I've been told I should ride around town in the afternoon and see how many of my executives have Amazon boxes on their front porch," he said to a group of them at an early meeting, according to someone there who didn't want to be

identified because he wasn't authorized to speak about it publicly. In 2016, McMillon negotiated a \$3.3 billion deal for Walmart to acquire Jet.com, a money-losing, would-be Amazon challenger whose founder, Marc Lore, was a former Amazon executive whose eagerness to cross swords with the Seattle-based company was widely known.

McMillon entrusted Lore to run Walmart's entire e-commerce operation and go on an acquisition spree, which led the company to buy online shopping startups such as men's clothing site Bonobos and outdoor retailer Moosejaw. McMillon found himself refereeing culture clashes between Lore's team and their Walmart peers, for whom frugality and humility were essential virtues. The Jet people's idea of bonding was watching HBO's *Silicon Valley* during work hours. They blanched at joining their new colleagues in the Walmart cheer. ("Give me a W! Give me an A! Give me an L! Give me a squiggly!..." At which point, everybody joins in a collective booty shake.) Lore's enormous compensation package, dwarfing even McMillon's, also rankled Bentonville colleagues.

Jet was supposed to become Walmart's e-commerce brand, a vehicle to reach urban shoppers. But Walmart ended up shutting it down four years after the acquisition, later selling Bonobos and Moosejaw. Instead, Lore encouraged the retailer to throw all its weight behind walmart.com, which had struggled over the years because of the company's lack of commitment. Customers, it turned out, liked ordering groceries on the site

and picking them up at the stores. During the pandemic, Walmart reconfigured store layouts to accommodate a flood of online orders, and that business exploded. Walmart's US e-commerce sales increased 76% in 2020 alone, to \$53 billion, according to eMarketer.

The Jet deal brought an influx of much-needed tech talent, which made it easier for the company to recruit others from Silicon Valley who might have previously turned up their noses at an offer from Bentonville. It probably didn't hurt that McMillon had established himself by then as a new kind of Walmart CEO, smooth enough to win over Wall Street and dabble in politics. He discontinued the sale of merchandise with the Confederate flag on it and called for state officials in Arkansas not to pass a bill limiting LGBT rights. He raised his company's already ambitious climate goals.

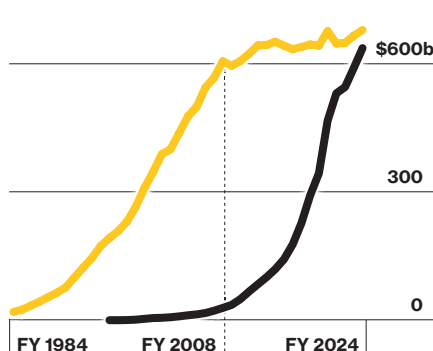
Walmart, it seemed, was no longer the target of the kind of criticism leveled against it in the aughts. Another massive retailer frequently accused of destroying neighborhood stores and treating its employees ungenerally had taken its place. "The boogeyman," says Neil Saunders, managing director of GlobalData Plc, "is now Amazon."

Bethenny Frankel is not the sort of person you'd expect to find praising Walmart, but in December, she logged into TikTok and proceeded to do exactly that. In a video that received more than 32,000 likes, the former *Real Housewives of New York City* star revealed that the company had been selling a dupe of Hermès' hard-to-find and supremely coveted Birkin bag. The starting price for a real Birkin is around \$10,000. Thanks to a third party selling on the Walmart marketplace, anyone could now buy a fake Birkin—a Firkin—for a mere \$85. As far as Frankel was concerned, Walmart was democratizing fashion. "This is breaking some luxury glass ceiling," she said. (In a subsequent review, Frankel revised her assessment. Holding up a bona fide Birkin, she declared, "This is like flying private." Of the Firkin: "This is like flying Spirit in the luggage compartment.") ►

Walmart Stays in the Picture

Revenue, in 2024 dollars

Walmart Amazon.com



◀ The viral Firkin moment exposes the awkwardness that Walmart has sometimes had trouble navigating—trying to be both cool and mainstream; protecting supplier relationships, while opening up to the anything goes chaos of a third-party marketplace. The last time it attempted to cast itself as hip, the gambit bombed. Metro7 was introduced in 2005 as what executives then described as a “premium” fashion brand, which had \$20 velvet blazers and \$24 pairs of distressed jeans and other items aimed at urban women. Walmart promoted the brand with ads in *Vogue* and a New York Fashion Week event in Times Square. It added organic foods. Several years later, in what many considered an effort to become more like Target and lure more upscale shoppers, Walmart revamped stores, ditching thousands of products

to make shelves less cluttered.

Bargain hunters with fatter wallets who flocked to its stores during the 2008 financial crisis came not in search of cheap chic clothing but looking for deals for toothpaste and toilet bowl cleanser. When the economy improved, those shoppers disappeared. Walmart reversed course on the ill-fated store revamp, and Metro7—not fashionable enough for upscale shoppers and too costly for Walmart’s core customers—was axed.

Now the retailer is once more chasing upscale consumers, relying on similar methods. Along with another round of store reboots, Walmart put its muscle in the last several years behind two fashion-forward, affordable clothing lines designed under the tutelage of the company’s new creative director, Maxwell. During New York Fashion Week

in September, celebrities like *Project Runway* judge Nina Garcia and female rapper Doechii emerged from SUVs in Manhattan’s Meatpacking District to attend Maxwell’s spring wardrobe show sponsored by Walmart. After models strutted about in very non-everyday-low-priced dresses and pantsuits, guests were shuffled to an adjacent pop-up store where they sipped tequila and flipped through racks of garments Maxwell helped imagine for Walmart’s Free Assembly and Scoop brands.

Walmart hopes its new look will bring in more higher-income shoppers. The company also acknowledges that the current uptick in those consumers has been prompted partly by inflation. The question is whether those shoppers will vanish again once the cost of a dozen eggs stabilizes. “Inflation has been Walmart’s



7

friend,” says Kirthi Kalyanam, executive director of the Retail Management Institute at Santa Clara University in California.

Walmart executives say the company will do a better job of cementing permanent relationships with these newer arrivals, because it has something it didn’t the last time around: its thriving digital business. Upscale shoppers, who are more likely to be tethered to their phones and laptops and who might never want to step into a store, will never have to—they can just get products speedily delivered. The retailer’s third-party marketplace allows it to tempt those hunting online for specific products—\$2,899 Gucci bags, for example, or \$468 retro Nike Jordans—they’d likely never sell in one of their stores. And its thousands of influencers remind shoppers to keep coming back.

Walmart says its online operation could finally turn a quarterly profit this year. The company is reluctant to provide much financial detail on its newer digital ventures, but UBS predicts that the company’s in-house advertising unit, which primarily relies on traffic on Walmart’s website and mobile app, will generate about \$6 billion in sales globally this year. As for its marketplace, eMarketer predicts that its US sales will top \$13 billion this year, still a sliver of Amazon’s anticipated \$360 billion. Walmart’s chief financial officer, John David Rainey, says his company is moving in the right direction, but “we need to be an order of magnitude bigger than what we are today.”

Of course, the more Walmart becomes like Amazon, the more likely it is to have Amazon-like problems. When a reporter brings up the Firkin, Walmart’s executive vice president for fashion, Denise Incandela, says the buzz around the bag couldn’t have been more welcome. “It was a viral moment,” she says. “It’s still a viral moment. We sold out pretty much overnight.” Others at Walmart grimace when asked about it. After all, it was a fake. Tom Ward, former chief e-commerce officer at Walmart US and now head of online and supply chain at Sam’s Club, says the reason the Firkin is no longer available on the marketplace is that Walmart took it down. “If somebody describes an item as something it’s just not, we’re not going to let you sell it,” Ward says.

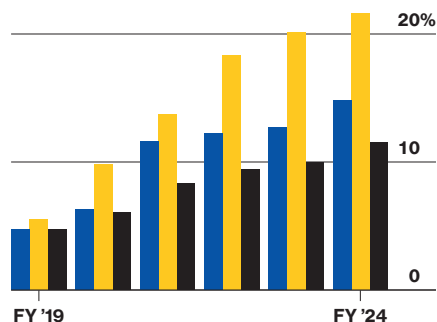
McMillon sounds as if he’d rather not talk about it. “I’m not an expert on that subject,” he says, noting he only recently heard about the fake bag. “You have to talk to somebody else.” When pressed, he acknowledges that opening up the retailer’s digital shelves to anyone makes everything more complicated. “Trying to build trust and being responsible for things in a world where you don’t actually own all the inventory and make all the decisions,” he says, “is more challenging.”

Arkansas Republican Governor and former Trump press secretary Sarah Huckabee Sanders took the stage at the unveiling of Walmart’s new campus in mid-January. “Looking

An Amazonian Makeover

Share of net sales from e-commerce

■ Walmart US ■ Walmart International ■ Sam’s Club



around, it’s hard to believe that we’re not in Silicon Valley or New York City,” she said. Once it’s completed, the campus will have 1,000 bike parking spaces and 5,000 freshly planted trees. Locally sourced mass timber, the latest in sustainable building materials, is being used in the construction of several of the buildings. A rooftop bar in a Marriott AC Hotel will also open on campus, named after Sam Walton’s old quail hunting spot in South Texas. “I think it’s safe to say that Arkansas has never had a development project like this ever before and probably ever again,” Sanders said.

Earlier in the day, McMillon gave a lengthy speech to employees about Walmart’s move to the new campus. No reporters were allowed, but in a video *Businessweek* obtained, McMillon shifts into blunt motivational speaker mode. He stresses that the digital transformation that began on his watch is hardly over. “We’re still behind in some metrics, still behind in terms of volume,” he says. “But we’ve got momentum, and we can make this work now.”

He doesn’t specify, but it’s fairly obvious what McMillon means. Amazon is expected to generate \$701 billion in revenue this year, surpassing Walmart’s estimated \$681 billion, according to data compiled by Bloomberg. It’s also been enormously expensive just to get this far, he says, pointing to a chart on the screen behind him showing how spending has driven down Walmart’s operating margin. “Most CEOs get fired when this ►

RENDERING: COURTESY WALMART ■ DATA: COMPANY REPORTS

7 Walmart’s new 350-acre campus—seen here in a rendering—partially opened in January





8

8 A woman runs errands in downtown Bentonville

9 The Lady Slipper serves its version of a Negroni on tap

10 The Crystal Bridges Museum of American Art, opened by Alice Walton, is a short walk away

11 Mountain bikers have easy access to trails

9

10

◀ happens,” he says. “I’d like to thank our board once again for not firing me.”

Bentonville’s makeover from sleepy rural backwater began a decade-plus ago with Sam Walton’s descendants, who still control more than 40% of Walmart’s shares and, as of December, had a combined fortune of \$432 billion. In 2011, Sam’s daughter, Alice Walton, opened the more than \$1 billion Crystal Bridges Museum of American Art, designed by modernist architect Moshe Safdie, which features artists including Kehinde Wiley, best known for his portrait of former President Barack Obama hanging in the National Portrait Gallery. The following year, members of the family backed a successful effort to overturn Benton County’s dry status.

More recently, two third-generation Waltons, brothers Tom and Steuart, have turned Bentonville into a mountain biking mecca, creating networks of trails in the area so enviable that the US National Mountain Bike Team now calls the town

home. Through their various real estate and hospitality companies, the brothers have also opened BlakeSt., a private club where members can work out and then order drinks from an outdoor bar while taking a cold plunge or a dip in the pool; the Ledger, a co-working space with an outdoor ramp that wraps around the building, enabling visitors to ride their bikes to their temporary spaces on all six floors rather than troubling themselves with the elevator; Lady Slipper, a cocktail bar where customers can sip the house beverage—a variation of a Negroni—on tap; and Motto by Hilton, a boutique hotel with a popular sushi restaurant and a Tiki-themed bar.

The city’s demographics are also shifting. Mayor Stephanie Orman boasts that it now has the state’s first cricket field, which she says serves the influx of South Asian tech workers relocating to the area, some of whom presumably work at Walmart. “We designed that around our large Indian population,” she says.

Still, not all Walmart employees are convinced they’re going to stick around for this next chapter. In conjunction with the opening of Walmart’s new campus, the company said it was closing offices in Dallas, Atlanta and other cities and requiring employees to move to Bentonville or Sunnyvale, California, to encourage in-person collaboration, while eliminating hundreds of positions as it consolidates corporate hubs. Several executives have already left rather than relocate, including Sam’s Club’s chief technology officer, Cheryl Ainoa.

On a corporate Zoom call in May, 300 web designers—some of whom were asked to relocate—lobbed unhappy questions and concerns. “As a member of the LGBTQI+ community, I don’t feel safe in Arkansas,” one wrote. “Women’s rights [are] being rolled back there,” someone else commented. One of their peers who identifies as Black and LGBT said he’d moved to Bentonville six months before. Even though he and his partner had been



“very nervous,” their experience so far has been “positive.” “There is community here,” he wrote in the chat.

On a Saturday afternoon, there’s an anti-abortion rally on the town square with protesters standing beside signs with slogans, one of which says, “The baby inside your body is not your body.” They are met with an equal number of counterprotesters carrying signs with slogans like “Abort the patriarchy.” Sitting at the bar at Motto’s sushi spot on a Tuesday night in January, a patron engages a *Businessweek* reporter in a lively political conversation, volunteering that he has a safe full of guns at home. If people like himself had heeded Trump’s call to descend on Washington on Jan. 6, 2021, he explains, there would have been a “real” insurrection. “We might have lost,” says the former Walmart executive. “But it would have been an insurrection.”

Now, of course, Trump’s back, and McMillon needs to figure out how to deal with his second term. Retailers like

Walmart probably expect more whiplash. In one instance during Trump’s first term, the 45th president caused avocado prices to rise simply by threatening tariffs on Mexico. That was hardly immaterial to Walmart, which sells them, along with guacamole in everything from squeeze bottles to freeze-dried packages to 32-oz. jugs. At the last minute, Trump pulled back. Now his vow to slap Mexico with 25% tariffs—delayed as of press time—could have Walmart customers reconsidering whether they can afford their favorite dip, especially when prices for Mexican avocados are

Kennedy Jr., the newly confirmed head of the US Department of Health and Human Services, wants to halt food stamps from being used to pay for soda and junk food. Walmart receives an estimated 26% of all Supplemental Nutrition Assistance Program (SNAP) spending, and shoppers’ grocery dollars could take a significant sales hit under such a scenario. Trump’s proposed immigration restrictions—like doing away with temporary protected status for migrants from Haiti, Ukraine and other countries—could make it harder for the company to fill positions at its stores and distribution centers.



already up 14% from last year because of a drought. Tariffs on China could have similar effects—it’s a prodigious supplier of clothing, furniture, appliances and pharmaceutical ingredients.

Even if tariffs are imposed, Walmart’s immense buying power and its global supply chain allowing it to source products from an array of different countries puts it in a better position than Target or Kroger to squeeze suppliers and keep down prices. At least that’s Walmart’s hope. “We’ve been dealing with tariffs for a long time,” McMillon says. “I think we will navigate that.”

There are plenty of other unknowns for him to manage his way through, while trying to boost his company’s sales and operating margins. Robert F.

Even with all that to figure out, the only time McMillon’s voice starts to quiver is when he talks about leaving behind Walton’s old office, which he’s likely to do in May. “That will be an emotional moment,” he says. “I try not to think about it too much, and I’ll try to do it alone. I don’t want anybody around.”

When he first moved in, he wanted to put up a whiteboard, only to have people at the company tell him he couldn’t do it because Sam didn’t have one. Nope, McMillon told them: Sam had a pegboard. The whiteboard went up. And there will be one on the wall of McMillon’s new office on the third floor of a building that surely will have a better view. He probably can’t wait to get there. **B**



Grand Theft A



When a car is stolen in the US, there's a good chance that the thief is a teenager, and that the vehicle will end up in western Africa

By Jonathan Franklin
Illustrations by
Callum Rowland

Auto: Real Lif



The parking garage on Florida Avenue

in Washington, DC, was an ideal place to stash the carjacked Mercedes-Benz. And the stolen BMW. And the purloined Dodge Challenger. Residents of the apartment complex wheeled high-end models down into the garage all hours of the day; why would anyone notice a couple of extra luxury cars?

The stolen-car business was so robust in Washington in 2023 that the Florida Avenue garage doubled as a clandestine showroom. Buyers and sellers congregated to receive incoming vehicles, then inspected the cars and quickly sealed the deal. Automobiles not sold within hours of the initial heist were listed on Instagram and shown by appointment. This business had dependable suppliers and repeat customers. Text messages intercepted by law enforcement captured buyers placing orders for specific makes and models. One 18-year-old delivering stolen vehicles to the garage executed six carjackings in a week. He left a half-dozen victims terrified and one shot dead.

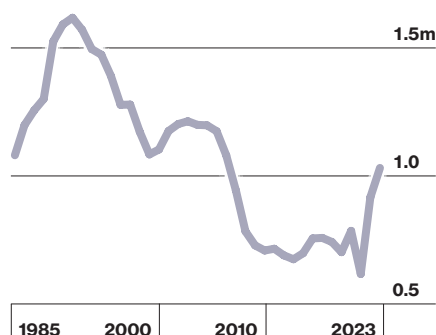
The hustle and bustle at the Florida Avenue showroom drew the attention of the DC Metropolitan Police Department, whose officers infiltrated the operation. Posing as middlemen, they organized a takedown in late summer 2023, and four men were charged with operating a car-jacking racket. Those suspects, currently jailed and awaiting trial, represent a tiny fraction of the vast car-theft underworld that led to the robbery of 1,020,729 cars in the US in 2023, the latest annual figure from the nonprofit National Insurance Crime Bureau. This continued an unwelcome reversal: Car theft had been falling steadily since peaking in 1991. Then came the pandemic. Since early 2020, auto thefts have increased by about 30%.

Statistics for 2024 are incomplete, but partial state-level results suggest that law enforcement campaigns to combat violent carjackings led to a fall in thefts last year.

About 10% of the cars stolen in the US today are smuggled overseas, according to Homeland Security Investigations (HSI), which runs a New Jersey-based task force that integrates the efforts of local and federal law enforcement and coordinates crackdowns up and down the East Coast. Nowhere is international stolen-car traffic more robust than in the trade from the eastern US to ports in West Africa. With long-established routes hauling millions of shipping containers each month, car thieves have become bold in their efforts to slip stolen vehicles into this flow of legitimate commerce.

An Unwelcome Reversal

Motor vehicle thefts reported in the US



Used-car brokers in West Africa know what models their customers will snap up, so they call US-based thieves to beef up inventory of highly desirable models. “They will give orders: ‘I am looking for a 2024 Mercedes SL350 with leather interiors,’” says Noel Moloney, a detective who retired in December after four decades investigating car thefts, first with the New York City Police Department and then with US Customs and Border Protection (CBP). “They will have someone sitting at a gas station in Philadelphia looking at people. He has an order for that specific car, and a woman goes in, buys her coffee and leaves her car running. Or he might be able to have her followed and some guys would carjack that car.”

In the thriving used-car markets of West Africa, the most sought-after vehicles include Range Rovers, Toyota pickups and BMW sedans. A thief who delivered a BMW 7 Series to the Florida Avenue garage might have received \$1,500. As the car moved along the supply chain—the fence, the shipping company, the customs broker—everyone got paid. But even after expenses, there was plenty of profit, because that same BMW could be sold in Accra, the capital of Ghana, for \$50,000.

Nowhere in the US in 2023 did car thievery surge more than in metropolitan DC, which saw a staggering 6,809 cars stolen, a 64% year-over-year increase. Notable cases included the attempted robbery of a vehicle used to transport President Joe Biden’s granddaughter Naomi Biden, in which Secret Service agents opened fire against armed assailants. Another Washington shoot-out involved US marshals working the security detail for Supreme Court Justice Sonia Sotomayor. An FBI agent was carjacked by a 17-year-old. Texas Representative Henry Cuellar had a gun stuck in his face and his car taken. Thieves in DC even made headlines after apprehension. A man who was arrested after crashing in a stolen vehicle evaded police custody at the hospital, then stole an ambulance to escape. He was seen on surveillance footage driving away while wearing a hospital gown, IV needle still in his arm.

Efforts by Washington Mayor Muriel Bowser to counteract the spree were widely ridiculed, in particular when she ordered district officials to give away AirTags and Tile tracking devices to car owners in high-risk neighborhoods. “The word will also get out that this is not a community to come in and steal cars, because it won’t be worth your while,” Bowser said. Online commentators mocked the initiative. One wrote, “Well, you’ll know where it’s being stripped or what country it was shipped to.” Another added, “Why not hand out Band-Aids so that in the event of being shot on the street by the thug that is going to steal your car, you don’t bleed to death?”

PHOTOGRAPH BY IKE EDEANI FOR BLOOMBERG BUSINESSWEEK ■ DATA: FBI CRIME DATA EXPLORER



Moloney of Customs and Border Protection (left) with Walker of Homeland Security Investigations

Federal law enforcement officials didn't laugh it off. They described the mayor's move as risky. Officials in New Jersey highlighted the example of a car owner who used a tracking device to find his stolen vehicle and tried to recover it. He was shot.

The evidence that's emerged from the Florida Avenue bust shows a criminal culture with a lot of swagger and not much concern for keeping a low profile. Carjackers stole cellphones from their victims, then kept those devices at home. They stashed the driver's licenses of their victims in closets, posed online with cash and guns, and regularly posted selfies taken in the cars they'd just stolen. Cops often observe that contemporary car thieves behave as if they're characters in a video game. As the police monitored

communications from one suspect, he bragged about a recent heist. Texting another criminal, he typed GTARL. Officers knew what he was celebrating—*Grand Theft Auto Real Life*.

IN WASHINGTON, TWO-THIRDS of those arrested for carjacking in recent years are under the age of 18. They're exploited by adults who heap cash and praise upon them while assuring them they won't go to jail even if they're caught. "These gang members are almost grooming these juveniles, acting like a father figure," says Vicki Parrish, a special agent with HSI. "We see the communications saying, 'Hey, you are my guy. You are my top performer. Go out and get more.'"

A 12-year-old made headlines throughout 2023 and into 2024 as he

stole a BMW, a Jaguar, an Audi, a Tesla and a cargo van. At one point he hit a half-dozen Maryland dealerships in less than a month. By mid-2024 he had been arrested 22 times. A 2022 Maryland judicial reform stipulated that children under the age of 13 can't be charged with property crimes, so the police returned the boy to his parents.

Lynette Munroe, an elementary school teacher in Washington, describes children openly discussing how easy it is to steal cars. Her students refer to stolen vehicles as "free cars." "We heard them talking: 'This guy had a free car for the weekend,'" Munroe says. When she left her car keys on her desk, a student walking by called out, "Free car!"

None of this is limited to Washington. Mike Schmidt, a task force officer ►



Tens of thousands of shipping containers leave East Coast ports every day. Tucked into some are stolen cars.

◀ with HSI in New Jersey, describes adolescent thieves piling into a car during holiday weekends to “go shopping” for vehicles to steal. “They drive around a rich neighborhood, find something like a barbecue, and they see five Mercedes,” Schmidt says. “They are going to try to steal all five.”

Thieves train on social media. On Instagram, Snapchat, TikTok and YouTube, brief DIY car theft videos explain how to, for example, use a screwdriver and a USB cable to rip off a Kia Optima or Hyundai Elantra. Teenagers across the country turned this into a phenomenon called the Kia Challenge: They recorded themselves stealing cars, posted the videos and challenged others to do the job faster. The Kia Challenge led to multiple deaths as rowdy teenagers, more accomplished at stealing

automobiles than driving them, caused fatal crashes.

These how-to-steal-a-car-after-school videos unleashed a wave of crowd-sourced criminality that forced Hyundai Motor Co. and Kia Corp. to hand out, free of charge, 340,000 steering wheel locks. The companies also updated software to activate an ignition kill system if the USB cord hack was attempted. A \$145 million class-action lawsuit against Kia and Hyundai was given final approval by a federal judge in October 2024.

Still, the most common way to steal a vehicle is the most basic: finding one with the engine running or the doors unlocked and the keys in sight. These crimes of opportunity represent an estimated 40% of US car thefts. During times of extreme heat or cold, owners often leave the car running (with heat or AC

blasting) while making a quick trip into a shop. Or the owner leaves the ignition fob in the center console while carrying a bag of groceries into the house. The robbers, waiting for the moment, slide into the automobile and drive to a location where a fence has set up shop. If the fence sees the car as a candidate for the African markets, it may be inside a shipping container within 24 to 48 hours.

“A fence might be paying five hundred to a thousand dollars [per car], and they might be buying five vehicles or more a week,” Parrish says. “These brokers are working with three or four exporters at the same time. They will send out a message and say, ‘Hey, we have a 2024 Land Rover—who’s interested? Who is going to give me the highest price?’”

Auto thieves aren’t slowed down by efforts to track stolen cars via GPS

devices. With a little online research, they learn where the manufacturers place the units in a particular model—typically in the rearview mirror or inside the sun visor—then strip them out. As evidence that a stolen car no longer contains active tracking devices, the criminals deposit the mangled and deactivated GPS units in the cup holder—proof to the next leg of the supply chain that the vehicle is now invisible. “Within the first 5 to 10 minutes of them getting inside the car, they look for the GPS and rip it out,” Schmidt says. “The GPS allows us to track where the car is going. Say it’s a Mercedes-Benz. We can call them up, and they can track it in real time. Once

they rip it out? We are done. You are never going to find that car unless we get it leaving the port.” (An exception is Tesla vehicles, which can be set up to require a driver-ID code and have more sophisticated tracking capabilities. There’s also less demand for Teslas and other electric cars in Africa, where there’s only an incipient charging infrastructure.)

Thieves love rental car companies. They steal a person’s identity, then rent a luxury car under the assumed name. “They get your address out of the garbage and apply for a credit card under your name. Then they go to Hertz,” says William Walker, acting special agent in charge of the New Jersey offices of HSI.

The thief rents the car for a month, perhaps using a fake driver’s license bought from a website in China. It might be 30 days or more before the cardholder notices the unauthorized car-rental charge. At that point, the vehicle is often en route to West Africa.

And though personal tracking devices may not be safe or sensible for car owners, criminal gangs find them effective. “Criminals are chucking AirTags into your car. Say it’s a shady guy at the place where you get an oil change. Then they see where you live and steal your car. We see a lot of that,” Schmidt says. He suggests that car owners download tracker-detection apps to see if they’re ►

A wall of goods hiding a stolen car in a container at New Jersey’s Elizabeth Marine Terminal. Sophisticated thieves can get four cars into a 40-foot container.

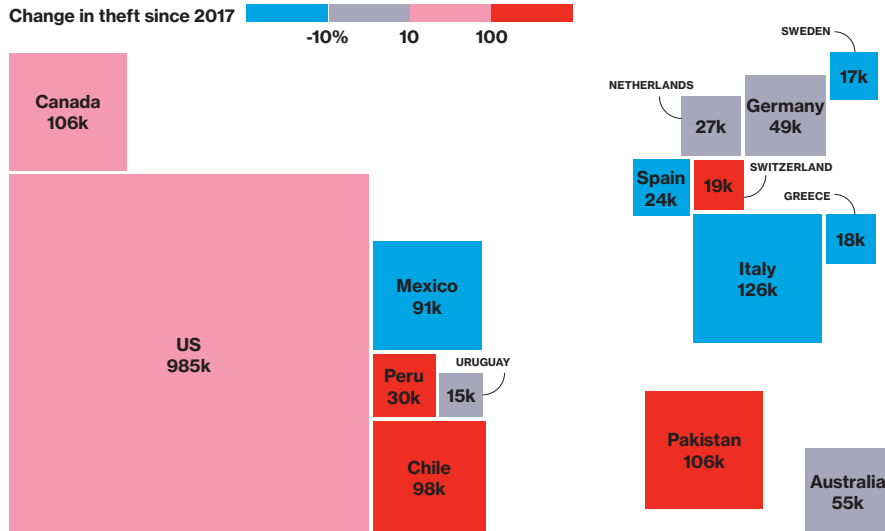


An officer looks for a car's vehicle identification number. The thieves preparing it for export have removed the one in the primary spot.



Business Is Booming

Countries reporting more than 10,000 auto thefts, 2022



◀ being monitored by a device stashed in their vehicle. After recovering stolen cars, Schmidt has found AirTags hidden by thieves in the back seat, under a floor mat and attached to the spare tire. “They just toss it in, and it’s only the size of a quarter. I see this more and more,” he says. “In the last couple of weeks, we probably found seven AirTags in cars.”

The gangs also conduct online reconnaissance of affluent neighborhoods, through Google Street View. “Not only do they see the house, they see the vehicles that are sitting in the driveway. And that will be date-stamped,” Walker says. “They don’t have to go out and do physical surveillance. They can do it on the internet, from their phone.”

After identifying a target, the thieves stalk the house and either plan a break-in to snatch the fob or approach the home close enough to clone the key. Electronic fobs constantly emit radio signals to a distance of about 30 feet. After capturing the signal, often from a fob left near a front or back door, the criminals use a black-market device (sold for less than \$1,000) to trick the car into unlocking the doors and starting the engine. They then reconfigure the car security system to a new key. “A lot of people are not aware of the risk that the key provides. It is so glaringly obvious,” says Dan Bulman, co-founder of Keyshield Securities Ltd.,

a company in the UK that sells a tiny sleeve to wrap around the battery inside a key fob, thus blocking the signal until the key is picked up or moved. “There is a significant level of public education still needed to understand this security threat and how to prevent your car from being stolen.”

THIEVES HAVE SEVERAL options if they plan to export a stolen vehicle. They can file paperwork to declare they’re transporting household goods and sneak the car into a shipping container, sometimes hidden by actual household goods. Or they can forge paperwork, allowing them to declare the vehicle as cargo. In some cases, they go further and alter the 17-character combination of letters and numbers that make up a vehicle identification number, or VIN. Export gangs scour salvage yards searching for the skeletal remains of a coveted make and model. The wrecked vehicle’s VIN can then be attached to a stolen car of that same make and model, which is then exported. Federal agents working in New York describe a gang in the Bronx that can “re-VIN” stolen cars in less than an hour.

Federal law enforcement agencies employ database detectives to search through cargo shipment paperwork looking for signs of smugglers, but the sheer volume of used-car exports is

overwhelming. The Port of New York and New Jersey approved the export of more than 2,000 used cars a day in 2023, meaning that criminals have a huge legal market into which they can add their illegal goods. Most of those automobiles are destined for Africa, but thieves also send damaged luxury cars to Romania (where they will be repaired and then resold), small sedans to the Dominican Republic and intact luxury cars to Dubai.

Most, though, are going to Africa. When stolen vehicles hit the streets there, overstretched local government agencies are unlikely to investigate if one on the road is legal, illegal or of dubious provenance, says Eleanor Beevor, senior researcher at the Global Initiative Against Transnational Organized Crime. Beevor conducted a 2022 investigation of the stolen-car trade in Mali, Burkina Faso and Niger—countries where military coups took place in 2021, 2022 and 2023, respectively. “If you are trying to run security for a particular town, you are not going to expend much energy running checks on making sure vehicles weren’t stolen thousands of miles away,” she says. “Conflicts have made it even less of a priority than it already was.”

Once on the ground in Africa, the stolen cars can be kitted out with falsified paperwork. In one hub for forgery, the Niger border town of Birnin-Konni, fake Nigerian license plates sell for \$16, and fake vehicle titles cost \$2.50. It’s not only cars stolen from the US being offered for sale. Canadian authorities estimated that 80% of all cars stolen from Quebec in 2023 were exported to West Africa. So many cars are snatched in France for the trip to Africa that thieves jokingly referred to that crime as *Au Revoir France*.

In 2023, Ghanaian officials working with FBI agents identified 95 stolen cars of US origin being hawked at used-car dealerships across Accra. Many of the vehicles were high-end models, including an Audi Q7, a Porsche Panamera and a Bentley Continental valued at \$210,000. There was also a fleet of stolen Ford F-150 pickups, which are coveted by militant groups. They mount heavy weaponry—grenade launchers, machine guns, rocket launchers—atop the bed to race village to

village, battle-to-battle, in violent clashes to control an area known as Central Sahel, which includes regions of Mali, Burkina Faso and Niger.

In Accra, stolen automobiles are tucked into the much larger legal used-car market. Ghana's expanding middle class, minimal local car manufacturing and a jammed public-transport system using minibuses all help increase the demand for used vehicles. Beevor recalls a fellow aid worker telling her "there are only two kinds of people that buy new cars in West Africa. There are politicians, and there are NGOs. Everyone else buys secondhand."

Even in stable and thriving cities such as Accra, the ease with which stolen automobiles circulate is notorious. Ghanaian investigative journalist Philip Agbove describes riding with local law enforcement in 2023 when he noticed a car in front of them with Quebec plates. Agbove pointed it out. The officers showed no interest.

Any attempt to infiltrate or investigate the West African stolen-car underworld is dangerous. Dealers that trade in stolen vehicles employ spotters to keep an eye on visitors. Armed sentries working for criminals at ports protect their business. Curious interlopers risk being shot. "A group of people in Nigeria specifically working to repatriate stolen cars found on used-car lots in Africa were going out and identifying stolen cars," says Moloney. "One of those gentlemen was assassinated, and the rest decided to go into another line of business."

"Vehicle crime isn't just about stolen cars," says Valdecy Urquiza, secretary general for Interpol. "It's about something far more complex, far more dangerous. It's about organized crime using those stolen vehicles and parts as currency to fuel a network of illegal activities—from drug trafficking to human smuggling, from the arms trade to acts of terror."

THE TIDE OF outgoing stolen automobiles is only occasionally stemmed. Most port inspections prioritize containers and shipments entering the country rather than those leaving. But inside a massive warehouse next to Port Newark-Elizabeth Marine Terminal in New Jersey, sophisticated scanning technology combined with old-fashioned detective work by CBP and local police is making a small dent in the trade by seizing 30 to 50 cars every month.

During a tour last year, the facility was strewn with row after row of cacao beans in burlap sacks and a mass of children's plastic playhouses. Alongside was what looked like a luxury car showroom, featuring a dozen confiscated stolen cars including a Range Rover, a BMW and a Mercedes.

The cacao beans and children's toys were incoming goods, selected for secondary inspection. The cars on the floor were attempts at exports, recently seized and awaiting further inspection by law enforcement. Federal agents had found two of them in a 40-foot metal shipping container behind a wall of boxes containing cooking oil.

Moloney sized up an almost-new Mercedes SL Class sedan—original value \$117,000. The hood was awash in dust, and handprints were clearly evident; perhaps an incriminating fingerprint could be lifted and traced. Other CBP officers pointed out three cars stolen from the German luxury rental firm Sixt SE that had nearly embarked on an ocean voyage. "We pulled them out after we scanned the container and found them hidden," Moloney said. He showed off a high-tech truck nicknamed the "Transformer," which employs a retractable arm to scan the innards of shipping containers.

"See the roof damage on this one?" he noted ruefully as he examined one car. "They stacked the cars one atop another."

A better class of smuggler, he said, can stash four cars per container without a scratch. The thieves use wooden pallets to build a ramp, drive the car high up and use short chains to hang the vehicle from the roof of the container. It's a three-week journey, the car swinging like an unwieldy chandelier all the way to West Africa. **B**

"A group of people in Nigeria were going out and identifying stolen cars. One was assassinated, and the rest decided to go into another line of business"

The Cosmic Con

Joseph Firmage helped create the internet economy before being dismissed as a UFO kook. These days he's being sued by antigravity-machine investors and claiming to be hounded by a Jamaican wire-fraud gang, with a guy pretending to be Steven Mnuchin along for the ride

By Brent Crane
Illustrations by Michelle Rohn



One day in August 2021, Joseph Firmage walked into a video production studio in Salt Lake City and declared that he was going to change the world. Flanked by a bodyguard, he wanted to shoot a marketing reel for the major inventions he was building, according to the studio's owner, Brandy Vega. These included limitless clean energy devices, self-powered homes and antigravity propulsion systems. "I hope that I am remembered for having made a difference, a structural difference," he intoned in the reel the studio eventually produced. "I believe that the third millennia of our sacred world can be so much more than we think today."

Speaking with Vega after filming, Firmage mentioned he was seeking investors. The Department of Defense was interested in buying his incredible inventions, he said, but he needed fresh capital to complete the research and development. After a quick Google search of his name, Vega decided to invest. "I think that's how he got people," she says. "With his previous résumé."

In 1989, when Firmage was 17, he'd founded a software company in Salt Lake City called Serious, which he quickly sold to Novell, a big networking-technology company, for more than \$22 million. At age 25, while he was an executive at Novell, he co-founded another company, USWeb. This enterprise, which helped companies establish an online presence on the early internet, went public with a \$2.5 billion market cap and an estimated 50% share of the market for web design services. Its clients included AOL, Apple and 20th Century Fox. In 1998, at the height of the dot-com boom, *Forbes* listed Firmage among 13 "Masters of the New Universe" alongside Jerry Yang and Jeff Bezos.

"The whole time I was working with him, I thought, 'Life led me to someone who's going to be, like, a Steve Jobs, super billionaire guy,'" says Bruce Gilpin, a former USWeb executive. "I was convinced I was going to spend my career with Joe."

Firmage grew up with six siblings in Salt Lake City, the great-grandson of the Mormon apostle Hugh Brown. He was raised in the church and cherished family ties. At Serious he employed one of his brothers, Edwin Jr., and his mother, Gloria, as a personal assistant. She followed him to USWeb in Santa Clara, California, where he also employed his sister Zina. His late father, Edwin, whom he revered, was a globe-trotting University of Utah law professor known for his scholarship in Mormon history and his antiwar advocacy.

The younger Firmage was short, with boyishly thick brown hair and a wide nose. A workaholic known to linger at the office past midnight, he was an avowed teetotaler; one early employee recalled him ordering a glass of milk at a steakhouse. And he wasn't a conspicuous spender, apart from a red Corvette with the vanity plate "USWEB." "It wasn't like he would wear million-dollar watches," says Linda Keala, USWeb's former human resources director. "He wasn't that kind of guy."

But then came a self-immolation of intergalactic proportions. One day in 1998, Firmage began to tell colleagues that, as he later recounted to the press, an otherworldly "being clothed in brilliant bright light" had appeared in his bedroom. "He said, 'Why have you bothered me?'" Firmage recounted. "And I said, 'Because I want to travel in space.'" He later said

the being emitted a blue sphere that entered his body and caused "the most unimaginable ecstasy I have ever experienced, a pleasure vastly beyond orgasm."

Firmage had always been drawn skyward. USWeb co-founder Toby Corey recalls that Carl Sagan's show *Cosmos* was his "North Star." But the alien obsession was new, and it proved to be overwhelming. Sometimes, Keala says, Firmage would drive his Corvette into the Santa Cruz Mountains with the top down, "waiting to be abducted." After he announced plans to publish a sprawling, delusion-riddled tome called *The Truth*, "the proverbial shit hit the fan," Corey says. In late 1998 the company was in the middle of a sensitive merger with a major competitor. Facing pressure from shareholders, it replaced Firmage as chief executive officer with an executive from Oracle Corp. (In Firmage's telling, he chose to step down.) Initially relegated to "chief strategist," he soon left USWeb entirely.

With his corporate standing in tatters, Firmage used his wealth to build a new space for himself. He funded gatherings of UFO truthers. He gifted fortunes to space and physics organizations including the Planetary Society, the Carl Sagan Foundation and the Arlington Institute. He donated to the Dalai Lama's foundation, the United Nations Millennium Summit and other world peace stalwarts. He delivered meandering lectures nominally focused on physics and space. He also founded his own research groups: the International Space Sciences Organization and the California Institute for Physics & Astrophysics. "He was still young," Keala says. "I'm sure he thought, 'Oh, I can just go make another 10 or 20 million on my next venture.'"

Some physicists were happy to accept Firmage's patronage. Others ridiculed him. In 1999 a newsletter published by the American Physical Society mentioned that Firmage had been awarded the satirical "Flying Pig Award" by a skeptics organization. He "gave up a two-billion-dollar computer business to spread the 'truth,' which is that humans aren't smart enough to have invented the computer chip," the newsletter read. "It was reverse-engineered from debris from crashed UFOs. The government is hiding the truth to preserve our self-esteem."

Through the turn of the century, curious journalists occasionally checked in on the "Fox Mulder of Silicon Valley." Firmage wasn't shy about his pursuits. "I am trying to initiate something like a movement to expose people to a broader worldview," he told an Australian newscaster, sounding confident he was on the verge of triumph. But a new generation of tech gurus came along, the world moved on, and Firmage was all but forgotten—except by those who'd entrusted him with their money.

Vega and her husband began by making small investments with the eccentric inventor who'd visited their production studio. They were OK with his extraterrestrial baggage. "We had both served in the military and seen our fair share of odd things," Vega says. The Pentagon had even admitted, in an explosive 2017 *New York Times* report, that UFOs were a genuine mystery to the US government. (Officials prefer the term "unidentified aerial phenomena," or UAPs.) For Vega this admission helped smooth

out the more outlandish edges of her investee. She and her husband ended up handing Firmage close to \$100,000.

Firmage had assured the couple that a \$200 million government contract was in the works and that they could expect strong returns. In the meantime he sent Vega videos of his prototypes, including a spinning gyro called the Accelerometer that he said could power antigravity propulsion. He touted a roster of distinguished backers: hotel chain heir and former US Representative David Daniel Marriott; Arizona State University physicist David Hestenes; and General Wesley Clark, who'd served as NATO's Supreme Allied Commander for Europe during the 1990s. (All of them really were Firmage supporters, *Bloomberg Businessweek* confirmed.) Firmage also stressed that his father maintained elite



Firmage during his 2020 presidential campaign (he lost)

connections in Washington. A few of his longtime associates, people who'd invested more money than Vega and her husband, also helped temper their doubts. Despite Firmage's eccentricities, they assured the Vegas, he was a genuine "genius" on the cusp of revolutionary change.

Vega couldn't believe her luck. Had she really chanced upon an investment that might transform humanity? "I love innovation, I love tech," she says. "I thought, 'Wow, that would be pretty cool to be involved in something that could do what he said it could do.'" All the while, she says, Firmage requested funds—\$200 here, \$500 there. "It was just him constantly needing extra money to finish this one part or to get this one thing done," she remembers.

But the returns failed to materialize, and it became clear that Firmage was going broke. He lived in his moldering childhood home with his mother, whom his father had divorced years earlier in an ugly split. Once, when Firmage tried to buy a car from Vega for \$6,000, his check bounced. Still, he assured her that profits were imminent. "Payments and Grants outbound expected to commence this evening," he wrote in a text thread with Vega and other investors in July 2023.

In the ensuing months the people in the thread begged Firmage to pay them out. He responded to their frustrations with cheery evasions: He was fixing one little kink in his wiring, or meeting government officials in Washington, or working on an unlikely presidential campaign he'd started up. "I trust today will be a magnificent one!" he texted one day. He never made it onto any state ballots, and the investors kept on waiting for their money.

Some of them are now taking Firmage to court. In legal filings and interviews with *Businessweek*, they accuse Firmage of conning dozens of victims through different companies and schemes. He promised gargantuan returns, they say, with the same unrealized inventions, leading many believers to hand over their life savings. One ongoing civil suit, filed in federal court in August 2023, alleges that Firmage and his associates are responsible for roughly \$25 million in losses. Filmmaker

Michael Patten says his late father, Terry, invested more than \$350,000 in Firmage's antigravity project from 2016 to 2021: "My dad died a broke man under the illusion that he was holding on to millions and millions of dollars of investments."

Firmage denies any accusations of financial impropriety. "This is slander in the highest order," he says, adding that he doesn't run Ponzi schemes. "I do long-term projects that are hard to fund but must be done. Everybody benefits at the end."

Firmage set out to bring humankind to the stars, shatter the known laws of physics and take his place in history alongside Galileo, Newton and Einstein. Instead, he left investors wondering: Was he something closer to Madoff?

UFOs entered the American zeitgeist in the summer of 1947, when Kenneth Arnold, a pilot in Washington state, claimed to have seen nine crescent-shaped objects zipping by "like saucers skipping on water." Weeks later a farmer in Roswell, New Mexico, discovered unusual debris on his property, which a local Army report described as pieces of "a flying disc." Although the material was later deemed to have come from a weather balloon, many Americans preferred to believe in a vast government cover-up of a UFO crash landing. It was the dawn of an enduring national fascination.

That fascination reached a fever pitch in late 2017, when the *Times* published its report revealing that the Pentagon had poured at least \$22 million into an initiative known as the Advanced Aerospace Threat Identification Program, which investigated UFO sightings. This was in keeping with the US government's tendency to fund fringe phenomena, such as a program, run by physicist Harold "Hal" Puthoff, that studied the potential use of psychic powers for espionage. (It was broadly dismissed as a failure, though Puthoff has defended the

"It was just him constantly needing extra money"

research.) As for the UFO money, most of it went to an aerospace company owned by billionaire hotelier Robert Bigelow, a longtime friend and donor of former Senate Majority Leader Harry Reid. Bigelow has funded research into abductions and Area 51 conspiracy theories. So far, though, the Pentagon program appears to have found nothing more substantial than what Arnold saw in 1947: some weird stuff in the sky.

Soon after leaving USWeb, Firmage collaborated with Puthoff and an astrophysicist named Bernard Haisch to help him build an antigravity propulsion device he'd begun work on. (Neither Haisch nor Puthoff responded to inquiries.) The device is supposed to levitate objects by literally repelling gravitational forces. It's an article of faith in UFO circles that the US government has reverse-engineered alien spacecraft to create its own flying-saucer technology. The only problem is that such technology would violate the known laws of physics. This fact ►

◀ doesn't concern Firmage, who says his unproven approach centers on somehow manipulating the electromagnetic fields that create forces of attraction and repulsion.

While at USWeb, he'd started making a prototype at his house in Los Gatos, California, hiring a group of eastern European scientists to work in his garage. (At the time, says Keala, the HR director, Firmage's office was often cluttered with stacks of boxes labeled "Hazardous Materials.") It was the beginning of his quest to change the world.

But he'd need investors to do it. In 1998 some of his former USWeb colleagues started an incubator called Intend Change. "It was like Y Combinator before Y Combinator," says Gilpin, one of the founders. Although Firmage's C-suite image had been bruised by his ET obsession, he'd also made a lot of people rich, and some of those people were willing to keep betting on him. "He made billions of dollars for investors," Gilpin recalls. "For SoftBank alone, it was in the high hundreds of millions." (SoftBank Group Corp. confirmed that it invested in USWeb,



Intend Change and a Firmage-run media company called OneCosmos, but wouldn't comment on its returns.)

In partnership with SoftBank, Intend Change raised \$23 million for OneCosmos, which Firmage formed with documentarian Ann Druyan, Carl Sagan's widow. Firmage had personally donated millions to Druyan since 1999 for various space-centric projects, and this new media company became his main focus. "He was mesmerized by her," Gilpin says. "It seemed to all of us like he was kind of buying influence and time from her."

Druyan says she was never involved in OneCosmos beyond attending one or two meetings. "There didn't seem to be any *there* there, and so I dropped out," she says. Firmage kept going, expanding OneCosmos even as Intend Change fizzled out around 2001. He hired engineers and other staff to work at its office in Santa Cruz, including Keala. Mostly, though, he concentrated on investor recruitment.

At one point, Keala says, Firmage began showing up to work inebriated and reeking of alcohol. (Later, in 2008, he'd plead guilty to a DUI in Utah.) Keala says she also observed him using new investments to pay off old investors and putting money raised for OneCosmos into separate ventures.

"That's where I really believe this whole 'rob Peter to pay Paul' thing started," she says. "That's when things started to really come off the rails."

In 2002, with \$10 million in angel investment, Firmage started another company. He called it ManyOne Inc., inspired by *E pluribus unum*. The main product was an online portal that allowed users to navigate a 3D rendering of the universe, zooming in to see individual components and explainers. As CEO he exuded an intoxicating spirit of can-do. "His ability to create a team was fabulous," says David Eilers, a ManyOne vice president. "He could recruit people and get them inspired to try to build something that would make a difference." Firmage signed up a team of three dozen computer scientists and engineers. According to Eilers and other former colleagues, he promised them off-the-charts salaries.

Firmage had a knack for performance. Gilpin recalls that when wooing investors at USWeb, Firmage would wait until the last moment to join meetings, to ensure he'd make an entrance. "He would burst into the room and look everyone in the eye," Gilpin says. Then he'd commence holding forth on some esoteric subject before exiting just as abruptly as he'd entered. The effect was palpable. "It was an act. But it was like you just got a little fairy dust sprinkled on you from a celebrity," Gilpin says. "People would be blown away. They'd be like, 'Holy shit, that guy is smart.' That convinced a lot of people to work with us."

The main problem at ManyOne was that Firmage was constantly changing tack before any one project could be completed. Also, virtually no one got paid. One former employee with knowledge of the company's accounting, who requested anonymity for fear of retaliation from Firmage, says the company accrued more than \$800,000 in unpaid salaries. (Firmage, for his part, says it's normal for startups to struggle in this way. "Salaries get unpaid," he says. "That's why you have bankruptcies.") There was constant turnover. Another ex-employee, Mark Jansen, describes the place as "an ever-changing mirage."

Firmage's behavior became erratic. He'd show up to meetings visibly drunk, Eilers says, and make the company pay for his thousands of dollars a month in parking tickets. There were bigger financial problems, too, and in 2009, ManyOne declared bankruptcy. Somehow, Firmage managed to avoid the fallout. "Everyone has tried to sue Joe," says the anonymous former employee. "Joe is like Teflon." (Firmage says it's not unusual for startup founders to get sued. He doesn't dispute the drinking problem or that he racked up parking tickets, but says they only totaled about \$2,000.)

After ManyOne's implosion, Firmage sought new investors for his other projects. The universe delivered him one in the form of Brandon Fugal, a Salt Lake City commercial real estate broker. The pair had met in 1995, when Fugal helped Firmage acquire office space for USWeb. In late 2009, Fugal contacted Firmage out of the blue to ask about his antigravity research, which he'd read about online. When they met in person, Fugal says, Firmage showed him what he said was a prototype, then put him in touch with Puthoff and Clark, the US general, who

helped allay his doubts. After these calls, Fugal says, “I agreed to both invest and engage privately to assist and lead the effort to prove and ultimately commercialize his claimed discovery and intellectual property.” (Like Puthoff and former Representative Marriott, Clark didn’t respond to inquiries for this article.)

Fugal was a multimillionaire, the owner of a private jet and a helicopter. In 2010 he and Firmage formed a company called Motion Sciences LLC. He converted his private aircraft hangar into laboratory space. Puthoff joined Motion Science’s advisory board. In a video the company produced, Puthoff praised Firmage for his antigravity work. “They’re asking the right questions,” he said. “Being on the track they’re on, they’re definitely going to nail down just exactly what this technology can do.”

On his YouTube page, Firmage posted videos touting Motion Science’s progress. “This patented technology and physics breakthrough are going to change the world as we know it,” Fugal declared in one video. A subsequent scene featured a demonstration of the device: an orb wobbling in a glass box. Fugal stood alongside Puthoff and a dozen other observers while Firmage looked on solemnly in a suit.

The orb didn’t change the world as we know it. The only thing that did change, Fugal says, was his trust in Firmage, whom he fired about two years in “as a result of many issues and concerns relative to his behavior.” (Firmage attributes the end of their partnership to a dispute over financial matters.) Fugal continued Motion Science’s antigravity research through the end of 2013. A team of scientists and engineers he brought in ultimately disproved Firmage’s core claims, he says. “We lost millions.”

In 2011, while he was still working at Motion Science, Firmage gave it another go with a new iteration of ManyOne, called ManyOne LLC. He opened offices in Salt Lake City, Phoenix and Portland, Oregon. But this ManyOne had a different focus than the old ManyOne. Firmage divided the LLC’s work into two projects, called the Black Logo and the Blue Logo. The Black Logo referred to his antigravity project, or what some employees called “the spaceship.” The Blue Logo referred to a separate web-services business that collected and sold domain names and, somehow, promised clients high search engine rankings. Since his time at USWeb, Firmage had been hoovering up domain names. He claimed to own tens of thousands. Firmage called the Blue Logo services “GSEO”—as in, guaranteed SEO.

Firmage tried to recruit employees from ManyOne Inc. He often tapped his old network in this way, sometimes calling people from his past many years after no communication. Most of Firmage’s past employees declined, but some returned. “Joe is a visionary—he was enthusiastic and encouraging,” says an early LLC hire from the Inc. days, who spoke on condition of anonymity because he’s since come to fear associating with Firmage. “Luckily, I didn’t quit my day job.”

Firmage seemed different this time, more irritable, this ManyOne veteran says. He was paranoid, claiming that his house was under surveillance and that he’d received unspecified threats. He hired a bodyguard. Again, former employees say, he neglected to pay people their full salaries. They recall

that he often referred to smaller payments he handed out as “triage”—something to suffice until the big money came in, any minute now—and suggested that Darpa, the federal agency that develops cutting-edge military technology, might become the company’s patron.

In 2015 the Portland office mutinied. Eight staffers sued Firmage and associates over hundreds of thousands in unpaid wages; a judge eventually awarded them most of it. In 2017 the Securities and Exchange Commission opened an investigation, as did the FBI. The SEC investigation closed without bringing charges, but redacted SEC interviews with two anonymous employees, released as part of a Freedom of Information Act request, describe a tumultuous work environment in which no one ever fully understood the purpose of the company. (Although the FBI wouldn’t confirm that it conducted its own investigation, the SEC files refer to it doing so.)

In the SEC transcripts, the employees described how Firmage would offer them prestigious titles or worthless financial promises in lieu of payment. For instance, he’d pledge to make someone a board member or CEO at some institute or offer equity interest in one of his projects. He rarely drew up an agreement in writing, they said. More often he relied on verbal promises, delivered in voicemails. One morning in 2013, according to the transcripts, employees arrived at the Salt Lake City office to find the locks had been changed because Firmage hadn’t paid the rent. And, echoing Keala’s observations at OneCosmos, the employees outlined a pattern in which Firmage sought out new investors partly so he could repay earlier ones.

Throughout this period, Firmage would often tap his father, Edwin, for capital. (Firmage estimates that Edwin made around \$20 million cashing out USWeb shares.) In a series of emails viewed by *Businessweek* that were sent between the two men from 2011 to 2015, Edwin accused his son of wasting millions of his savings. He wrote in one bitter message that he’d given his son “approximately one thousand dollars a day for several years” on top of “millions” over 13 years “to pay the salaries of your physicists and engineers and other staff members.” (Firmage now says this is “not an accurate reflection of the facts.”)

In another email, Edwin pleaded with his son to “tell your associates the truth...you lack the means, currently, to pay salaries.” He often layered in some praise, too. “You are a great genius, an original thinker in physics,” he wrote in a third note. “But you have violated every promise you made to me.” Sometimes he demanded repayment. Other times he just wanted to vent. “The depth of your taking millions of dollars from me, in old age and clearly very very ill,” he wrote at one point, “is beyond my understanding of pure unadulterated evil.”

Around 2016, Firmage began to seek investors through more circuitous routes, and in some far more woo-woo circles. In one of these circles, he met Max Marmer, a spiritual seeker living on the Hawaiian island of Kauai who soon became a bitter enemy.

Marmer is a longtime adherent of Integral Theory, a pseudoscientific New Age movement started by the writer Ken ►

◀ Wilber. In 1998, during his philanthropic spree, Firmage had donated \$1 million to Wilber, whom he later called “one of the great philosophers of our time.” This windfall empowered Wilber, who didn’t respond to inquiries for this story, to found the Integral Institute, a nonprofit in Boulder, Colorado. Almost two decades later, Firmage began recruiting investors for his antigravity project, Science Invents LLC, among Wilber devotees. In the heterodox world of Integral Theory, he found a fresh infusion of cash.

Marmer grew up in San Francisco. He has a muscular build, with large, dark eyebrows and a low, searching voice. Attuned to the more esoteric quarters of contemporary philosophy, he says things like “Do you know the Fourth Turning?” and “There’s a strong argument that Joe is possessed by demonic energies.”

His chief intermediary with Firmage was a man named Robert Richards, a longtime Wilber associate. If Firmage was the mad genius, Richards was his levelheaded tribune. He called frequently, speaking in a meandering drone. To Marmer and other Integral investors, Richards portrayed himself as a friend and business partner of Wilber’s. But he also served as a kind of translator for Firmage’s Doc Brown zaniness.

“He, in his own mind, forgets about the critical step that connects the dots,” Richards told two dubious investors during a recorded 2019 call reviewed by *Businessweek*. He advised the investors that the next time Firmage called for money, they should say, “Joe, I’d consider giving you a thousand bucks, but what I need right now, or when you have time, is two hours where you’re very patient and we can link into each other.”

What really persuaded Marmer to invest were the Integral Theory figures who’d jumped on board, including Terry Patten, a speaker who’d co-authored a book with Wilber. “I thought, ‘How could Terry be involved for that long and there’d be no ‘there’ there?’” Marmer says. (Patten died in 2021 after losing \$350,000, according to his son.) Richards also referred Marmer to Firmage’s impressive corporate and philanthropic résumé. And he invoked the stalwart backers: General Clark, plus Hestenes, the Arizona State physicist. (Hestenes, who’s 91, described himself in an interview with *Businessweek* as a “consultant” and “adviser” to Firmage, adding, “He’s like a grandson to me.”)

Marmer says Richards told him Firmage had already created nine prototypes and needed a mere \$1.5 million to finish developing his next one, which would be capable of achieving nine seconds of controlled flight. Richards, Marmer says, told him the Pentagon had offered Firmage a \$200 million government contract in February 2022. Believing this, Marmer recruited nine friends and family members to invest, pooled their money and put about \$667,000 into Firmage’s project over three months.

Richards calls Marmer’s account a collection of “massive fictions” and says he wholeheartedly believes in Firmage’s engineering abilities. Richards maintains he was “200% confident” that Firmage’s claims of government backing were real. “Did I ever think Joe was scamming us or anyone else? No,” he says. In lieu of responding to most of Marmer’s specific claims, he alludes to a government conspiracy designed to discredit Firmage and

prevent the disclosure of UFO-related secrets. “Marmer’s group got fed certain stuff by puppet masters,” Richards says.

Firmage sent Marmer and other investors seemingly official correspondence with US government agencies. One letter to Firmage, dated August 2021, was supposedly from FBI Director Christopher Wray, saying the agency “has completed a thorough background evaluation of your remarkable life and career.” Another, dated July 2022 and emblazoned with a Department of State logo, was purportedly a letter from Secretary of State Antony Blinken to Firmage, stating that President Joe Biden wanted to license his intellectual property. The letter, however, was signed “Anthony Blinken,” misspelling his first name.

Marmer says that as he and others continued to hand over funds, internal deadlines passed without any returns. (Richards doesn’t dispute this.) Impatience curdled into suspicion. To Marmer’s mind, Firmage and Richards were offering nothing but delays and obfuscation. Frustrated, he demanded to meet Firmage in the flesh. Firmage assented, and in July 2022, Marmer flew to Salt Lake City.

The two met at the home of Virginia Menlove, Edwin’s elderly longtime partner. It was a chaotic scene, according to Marmer. Firmage buzzed through the house, taking calls from multiple phones and texting incessantly. Briefly he showed Marmer what he said was his antigravity device, developed with what appeared to be motorcycle wheels and other parts. He didn’t provide a demonstration.

“When the scales fell from my eyes was when I finally met Joe in person”

What Marmer believes Firmage really wanted him to see was a check made out to him from the Mega Millions lottery for \$500 million. Firmage claimed he’d been awarded the enormous sum after reverse-engineering the lottery’s random-number generator. Alarm bells were dinging loudly for Marmer by then. “When the scales fell from my eyes was when I finally met Joe in person,” he says.

Now fully skeptical, Marmer demanded an introduction to Firmage’s contact with the government—the person facilitating the \$200 million Pentagon contract, someone Firmage had long referred to as Christopher. Despite Firmage’s request for discretion, Marmer recorded their three-way call. In reviewing this recording and several others like it, *Businessweek* found no hard evidence to verify that Christopher was who he said he was.

“Hi, Max Marmer, how are you doing?” Christopher began. Firmage introduced Marmer as a “genius” and “an awfully great guy.”

“You are a national treasure,” Christopher replied, referring to Firmage. “We have to protect you at all costs. Max, you

just need to understand that you are with the best person ever and he will guide you. UFOs are very big right now. We have an expenditure that we will be giving Joe.”

Christopher didn’t strike Marmer as a high-level American official. For starters, he spoke with a Caribbean accent.

“An expenditure?” Marmer asked.

“We have a lot of money that will be pumping into Joe Firmage’s firm, OK?”

“Yeah. I understand.”

“You and Joseph will be partners, so you guys need to work together. In God we trust. I work at a special part of the government, OK? Special sector.”

Marmer was no longer just skeptical. Things had gotten downright weird.

“Joseph is set on a clear path right now,” Christopher went on. “Everything is set. Everything is ready. Time is of the essence. Time is money, and opportunity comes once in a lifetime.”

In October, *Businessweek* met Firmage inside Salt Lake County’s Oxbow Jail. He’d been imprisoned there for almost a year on charges of elder abuse, to which he’s pleaded not guilty. The court has refused him bail; the state has argued that if released, “he will continue to present a danger to the victim.” That alleged victim is Virginia Menlove, his late father’s octogenarian partner. She didn’t respond to inquiries for this story, nor did the guardian who’s been appointed on her behalf.

A police report paints a bleak scene: Firmage had been living with Menlove in Salt Lake City for more than a year when, in June 2023, a social worker with Adult Protective Services came by for a welfare check-in. The house reeked of raw sewage. Firmage was supposed to be paying Menlove’s bills, but her water, cellphone service and other utilities had ceased. Several months of Menlove’s Social Security checks were undeposited. In the meantime, Firmage had taken out loans in her name and attempted to refinance her home for \$380,000, according to the police report. Per the report, a niece told the social worker Firmage had been “isolating” Menlove from their family and taking most of her calls, and a cognitive test later determined that Menlove was in the early stages of dementia.

Firmage maintains he was Menlove’s guest, not her caretaker. When police followed up, he told the detective that “he had several business endeavors and expected to receive \$200 million from the federal government and that he was moving to Washington, D.C., to run for president,” according to charging documents. When the detective questioned Menlove, Firmage “continually interrupted and talked over others.” Soon after, he was arrested.

When *Businessweek* met Firmage in jail, his prospects didn’t look good. Beyond the elder abuse charge, he was facing a civil lawsuit brought by Marmer and a group of Integral Theory investors in federal court; Wilber and Richards were among the other defendants. (In a court filing, Wilber and Richards denied that their support for the propulsion technology “involved making any false or misleading statements or engaging in any false or misleading conduct.” Firmage says

he hasn’t responded to that lawsuit because he hasn’t been able to while locked up.)

In Firmage’s telling, the Menlove case, and all the rest, stemmed from a series of disastrous misunderstandings. “I cannot admit to a financial crime, because I didn’t commit one,” he said, banging the metal table on his side of a glass divider. He was adamant that he was the victim of the story. He was in jail, he said, because he’d been “gang-raped by an AI-equipped Jamaican financial crime syndicate.”

Firmage said he’s been misled by “Christopher” and had only later come to realize his partners weren’t actually US government officials—they were scammers who’d exploited Firmage’s access to investors. He couldn’t say for certain that they were Jamaican, but he assumed so because of their accents and the feds’ frequent prosecution of Caribbean fraudsters in connection with multimillion-dollar scams targeting Americans.

Firmage was aggrieved and abashed. His bearded cheeks were sunken. He looked thin. Over two hours he seesawed between calm eloquence and impassioned indignation. His monologues were rife with self-aggrandizement. He repeatedly referred in glowing terms to his high-invisible presidential campaign.

All told, he estimated he’d wired Christopher and others in his scam network \$1.1 million. In Firmage’s telling, they convinced him they represented the federal government. Playing to his ego, they informed him that they intended to appoint him as head of the US Space Force. They promised he’d then lead the country in “disclosure,” the government’s theoretical revelation of its stunning extraterrestrial secrets.

Menlove, he said, had also been duped by Christopher and his gang. Too embarrassed to admit it, he claimed, Menlove was instead blaming him for her losses. The prospect that he might be construed as a financial predator pained him immensely. Firmage didn’t deny his many debts and insisted they’d all be repaid. “I’m always someone who honors my word,” he said. “I do not leave people behind.”

It’s unclear if Firmage made up the whole gang angle, roping in accomplices to play the roles of “Christopher” and the others, or if he was genuinely the victim of such a group; Marmer and others say they believe the latter. What’s clear is that when some investors tried to perform their own due diligence, Firmage went on the defensive. One investor named Steve, an accomplished health-care entrepreneur who lost about \$625,000 but isn’t involved in the lawsuit, recorded a call he had with Firmage and a man calling himself John. *Businessweek* reviewed a recording of the call but isn’t publishing the other men’s surnames because Steve spoke on condition of partial anonymity, saying he was “completely embarrassed” to have lost money with Firmage, and “John” couldn’t be located. On the call, John claimed he was a “counsel” to the “US Consumer Protection Board” and worked on “high-profile cases.”

When Steve requested more details of John’s background, Firmage seemed to grow cagey. “Don’t waste time,” Firmage said.

“So, John, what’s your phone number?” Steve asked, his voice strained with disbelief. ►

◀ “You’re not establishing a direct communication and circumventing the chain of command on this, Steve,” Firmage growled.

“I don’t know who John is!”

“In these contexts, you have to trust management, buddy.”

In a separate call that Steve recorded, Firmage claimed to have Steven Mnuchin on the line, to confirm his claims of top-level government backing. (According to a spokesperson for the former secretary of the Treasury, it wasn’t Mnuchin.) Investor Steve wasn’t buying that, either.

“Are you Steve Mnuchin?” he asked the third caller.

“Yes, I am, sir,” the man replied. His voice on the tape sounded identical to the “Christopher” that Marmer had recorded, complete with patois.

Steve tested him. “What year did you divorce your second wife?”

“Now wait a minute,” Firmage interjected.

“You can’t answer the question,” Steve said.

Firmage exploded. “Do not ask false, simple questions that are leading!”

The fake Mnuchin claimed not to have heard Steve’s question, so Steve repeated it. “Listen, listen,” fake Mnuchin finally replied. “I divorced my first wife in 2014.”

“You actually got it wrong,” Steve said. He ended the call.

Firmage immediately called Steve back.

“How do you persist in the lie?” Steve asked him. “Joseph, do you have money or not? You don’t.”

Firmage wouldn’t hear it. He brought fake Steve back onto the call.

“You are not Steve Mnuchin,” Steve repeated.

“Yes, I am.”

Steve sounded exasperated. “Do you guys understand that it’s a felony to impersonate a government official?”

“Yes, it is,” Firmage said. “And it’s also a felony to violate, with intent to harm, an NDA!” (He’d made his investors sign nondisclosure agreements.)

They bickered some more. Steve groaned. “Do you guys know how ridiculous this whole thing is?”

But Firmage was on a different planet. “No, it’s not ridiculous, Steve,” he hissed. “Because I actually have a very high regard in the United States government, sir.”

Covid-19 deflated much of the UFO excitement that had been growing on Capitol Hill since 2017. But in early 2023, soon after a Chinese spy balloon was discovered drifting over the US, four mysterious high-altitude objects were shot down by American and Canadian air defenses. Even though at least one of the objects was later determined to be weather-monitoring equipment, the initial confusion helped hype the public back up on aliens.

Four months later a former US Air Force intelligence officer named David Grusch delivered some astonishing testimony on Capitol Hill. “I was informed in the course of my official duties of a multidecade UAP crash retrieval and reverse-engineering program to which I was denied access,” Grusch told a House subcommittee. Afterward, Congress amended the National Defense Authorization Act to declassify information about UAPs.

All of this continues today. In November 2024, four witnesses testified to Congress about a vast government cover-up of alien visits to Earth. These included former officials with NASA, the



US Navy and the Pentagon, as well as an independent journalist. The former Pentagon official, Luis Elizondo, claimed in a 2024 memoir that Washington was “in possession of advanced technology made off-world by non-human intelligence.”

“Has the government conducted secret UAP crash retrieval programs, yes or no?” Representative Nancy Mace, a South Carolina Republican, asked Elizondo during the evidence-free hearing.

“Yes,” Elizondo replied, looking grave. He’s since embarked on a national speaking tour.

One frequently used phrase among ufologists is “hall of mirrors,” which alludes to shady government cover-ups or covert misinformation plots. But it seems to apply, too, to the world of Joseph Firmage. Early on while reporting this story, *Businessweek* called a number associated with him, and a man with an Indian accent answered. He wouldn’t identify himself. “I’m so sorry to tell you that [Firmage] passed away last week,” the man said. “It seems to be suicide for now.”

Shady types encircle Firmage like space debris. One colleague who worked in Arizona at ManyOne LLC, named Charles L. Dickens, used to be a neurosurgeon in Chicago. In 1999 his medical license was suspended after he was arrested for cocaine and cannabis possession, according to Illinois medical records. Since then, in Arizona, Dickens has been arrested multiple times for assault, drug possession and unsafe driving, and pleaded guilty to one of the drug charges, according to state records there. Asked about him, Firmage told *Businessweek* that he thought Dickens was an adviser to the Obama administration sent “to help ManyOne” and that he’d severed contact after learning of his criminal background. (Dickens didn’t respond to inquiries.)

Since his detention in Utah, Firmage’s main legal representation has been a registered sex offender in Florida named John Tulip, who isn’t an attorney. In 2006, Tulip pleaded guilty to inducing a German boy he was living with to engage in child pornography. He served more than a decade in prison. Firmage encouraged *Businessweek* to correspond with Tulip following the jailhouse meeting. Soon afterward, Tulip emailed Firmage’s seven-page résumé.

Another figure in Firmage’s orbit is Ronald Pandolfi, a troll among online UFO circles who lives in Virginia. Firmage referred to him in a 2020 business presentation as a “physics advisor and senior U.S. intelligence officer.” Many ufologists say, without evidence, that Pandolfi is a CIA provocateur. Pandolfi seems content to prolong that assumption. Firmage often dropped his name to investors, including Terry Patten, suggesting Pandolfi was backing him. To some, this seemed to legitimize Firmage’s projects. To others, Pandolfi was part of a deep-state plot to discredit antigravity research for unclear reasons. Whatever the truth, Pandolfi strikes a decidedly odd figure. In reply to inquiring ufologists, he’s known to send mischievous limericks. In a YouTube interview posted by ufologist Grant Cameron, Pandolfi’s wife, Aliyah, claimed she can travel through “portals.”

When *Businessweek* emailed Pandolfi requesting an interview, he declined, replying, “I work for the USG, so I cannot discuss work or history.” Then he proceeded to send a series of extensive

emails repeating Firmage’s allegations that he’d been victimized by Jamaican scammers, whom Pandolfi called the Gang. “My involvement with Mr. Firmage from the time he left USWeb has been solely in the capacity of an old friend in an unsuccessful endeavor to help him recover from drug addiction, embrace reality and sever his association with [the] Gang,” he wrote. *Businessweek*, Pandolfi said, was “misguided or delusional” for investigating Firmage’s career, because he “has not been capable of engaging in any business activities since he left USWeb.”

Firmage calls this characterization “patently ridiculous,” though he acknowledges his past struggles with cocaine and alcohol.

To those who knew Firmage, his intergalactic obsession often seemed like a delusion of grandeur. “I felt like Joe really wanted to have some kind of role as a prophet of something,” says Druyan, Carl Sagan’s widow. “He would announce things like, ‘This is going to change things forever,’ and it would turn out to be nothing. It was clearly his fantasy of what he was meant to do.”

Richards, who became involved with Firmage’s antigravity research in 2015, similarly says Firmage viewed the project as his destiny. “We’d have late-night conversations, and he’d go, ‘Why me? Why am I the one on the planet that has to do this?’”

And though Firmage had a Midas touch in his youth, riches never struck those around him as a motivator. “He just didn’t care about money,” says Gilpin, the former USWeb executive. “He didn’t want to be on a yacht somewhere.” If not for money, then, was all of his scheming actually an attempt to regain that early sense of triumph and renown? Perhaps he truly bought his own dot-com-era hype. That’s how some have made sense of it.

“He absolutely believed all of it,” says Joe Labbe, a software executive who gifted Firmage money over the years. “I think it was a matter of ‘I believe in this, and I’m willing to beg, steal or borrow to make it happen.’”

“He thought he was going to be a big dog again, and he hadn’t experienced that since the USWeb days,” Richards adds. “He was hungry for that. A little too hungry.”

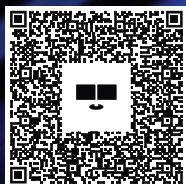
So were his investors. Antigravity propulsion would no doubt change the world. So would faster-than-light travel or cold fusion. From small-business owners to the highest echelons of the US government, many people want so badly to believe fantastic things are possible that they’ll put up substantial sums in hopes they can be made real. And then there are people, like Firmage, who want to believe they’re uniquely privy to such world-altering wisdom.

At the turn of the millennium, soon after embarking on his dramatic reinvention, Firmage was interviewed on a morning show about his spectacular claims. The interviewer began with the obvious question: “People are saying that anyone who sacrifices a chief executive officer career like yours and millions and millions of dollars must be crazy. Are you?”

Firmage was unfazed. He smiled. “Well, it depends on the perspective you come from,” he said. “I will leave the answer to that question to the history books.” **B**

Conquer complexity.

Get clear ESG data and insight to drive your sustainable finance decisions. With our scores, research, regulatory solutions and benchmarks, you can invest with confidence.



Learn more about
Bloomberg for ESG.

Bloomberg

PURSUITS



One of the greatest private troves of antiquities has been hidden away for more than a half-century. Now a writer and a photographer are allowed inside

By James Tarmy
Photographs by
Federica Valabrega

ROME'S
LOST
MARBLES

It's a cold January day in Rome, and I'm standing on the street in the touristy Trastevere neighborhood, trying to explain myself to two security guards in front of a sprawling building complex. "I'm here to see the Torlonia Collection," I say. "Can I please go in?" It's unclear if the blank looks I get in response are because of my halting Italian or because the guards are very good at not revealing what they know is inside.

Both are possible. Despite being hailed as the greatest private collection of Roman antiquities in the world, the Torlonia Collection has been locked away for almost 70 years, shrouded in myth and mystery. Thanks to a 19th century museum catalog, people know that the trove includes many hundreds of marble statues roughly dated between 1,700 and 2,500 years old, most of them dug up during excavations from the 16th century to the 19th century. Few people knew exactly where to find this "great treasure of erudition," as it was once called, or what condition it was in. There are even stories—perhaps apocryphal—about Italian government officials posing as janitors to see the works in situ. Interest in the collection has ranged from academic yearning to public outrage, such as when an old photo of the statues covered in dust raised brief howls of condemnation from armchair art conservators.

But over the past few years, a small percentage of the collection has stepped back into view: Portions were first seen at museum shows in Europe, and on March 15, a new exhibition will open at the Art Institute of Chicago. Still, only a few outsiders have been allowed inside to explore the conservation laboratory and warehouse where the pieces are stored; that's what I'm here to do. The difference between me and a phony janitor is that I actually have an invitation from the Torlonia Foundation, which is carefully opening itself up to the public. The family-supported institution manages not only the 622-piece Torlonia Collection but also the neoclassical Villa Albani Torlonia, a spectacular 20-acre compound near the Villa Borghese in the heart of Rome filled with more than 1,000 additional antique objects.

Led by Alessandro Poma Murialdo, grandson of Alessandro, the fourth Prince Torlonia, the foundation brokered a historic deal with the Italian government in 2016, which resulted in plans to exhibit the collection. Since then it's initiated the gradual conservation and cleaning of the marbles (so called because, with a few exceptions, they were sculpted from marble), which it will send to exhibitions around the world.

"It's very difficult to put into words how important this collection is," says the Art Institute of Chicago's Lisa Çakmak, who co-curated the Torlonia Collection exhibit. "You can visit the Vatican or the Capitoline museums in Rome, and then you'll go to the Torlonia Collection, and it will basically be the same."

Back on the street, I finally make contact with someone at the foundation who leads me through a maze of hallways and courtyards to a large metal door; my guide bangs on it (no doorbells here) and a smiling conservator opens it a crack. I'm in.

To understand how the collection accrued its international significance, you have to go back to the late 18th century, when Giovanni Torlonia began to acquire art in earnest.



The Villa Albani Torlonia, in a leafy neighborhood in the heart of Rome, was designed as a showcase for one of the 18th century's great art collections

The descendant of French fabric merchants in Rome, Torlonia used canny, aggressive business dealings and an advantageous marriage to turn a small bank into the go-to financier for the Papal States, the Bonaparte family and the Italian nobility. By the time he died in 1829, he'd amassed one of the largest fortunes in Rome.

Torlonia, anointed by the Vatican as the first prince of Civitella-Cesi (among other titles), had gotten rich at the dawn of the industrial revolution—precisely the moment when other aristocratic dynasties began to buckle under the weight of sustaining their vast estates. As these families sold off the treasures they'd spent generations assembling, the banker was an enthusiastic buyer. Palaces, paintings and, yes, antiquities were speedily acquired. The Torlonia Collection "is a collection of other collections," says Anna Maria Carruba, a noted Italian conservator who's helped oversee its restoration.

Torlonia's son Alessandro further expanded the family's wealth and kept up the buying spree, adding, among other trophies, the 18th century Villa Albani, which became the Villa Albani Torlonia. Built in the mid 1700s to hold the artworks of Cardinal Alessandro Albani, it was considered the model of neoclassicism, a marvel of whimsy and refinement. The influential art historian Johann Joachim Winckelmann and the architect and artist Piranesi both consulted on the project. Alessandro didn't buy just the villa; he bought all its contents, too, including some Egyptian statuary more than 3,700 years old. Further acquisitions, along with archaeological digs on his many estates, swelled Alessandro's collection of Roman antiquities.

As he aged, Alessandro made two decisions of far-reaching consequence: In the 1870s, he opened a private museum to showcase the Torlonia marbles. This wasn't a museum as we think of it, though; mostly it was open only to his friends and social peers. ("Probably not a dozen persons outside of the Prince's art council have had the good fortune to visit this fine collection which is so jealously shut out from the world," wrote a correspondent in *Blackwood's Magazine* in 1879.) Spread across 78 rooms and tens of thousands of square feet, it was arranged thematically—imperial portraits in one room, sarcophagi in another.

Alessandro created one of the last great fortunes of 19th century Italy. With the trappings of feudalism but armed with modern wealth and savvy, he succeeded where others failed and ensured the literal family jewels were kept intact for more than

a half-century after his death in 1886. Near the end of his life, he moved a large portion of his assets, including the Villa Albani Torlonia, the Torlonia Collection and about 30,000 acres of rich agricultural land, into a trust intended to skip two generations of his heirs, going entirely to the third generation's firstborn son.

That's when it all landed in the hands of Poma Murialdo's grandfather, the firstborn son of the third generation. But modernity was not as kind to the Torlonias as the elder Alessandro imagined it would be. During the left-leaning post-World War II era, the government expropriated the trust's farmland. By then, the marbles had been hidden from public view.

After the war, Poma Murialdo's grandfather had moved them into a warehouse and sealed it shut except for a small metal door. No visitors were allowed, and the Torlonia marbles turned into the stuff of legend.

Critics argued that in real terms, shutting up the marbles meant that one of the greatest treasure troves of Roman antiquity was gathering dust, in the dark, reliant on the whim of a single person. Poma Murialdo is understandably more generous, though he acknowledges the thrust of the issue. The collection was "basically paralyzed—not actively collecting or studied a lot," he says. "It's preserved in a way that they're basically stuck in time. And that's why we have something that is unique."

The point of the Torlonia Foundation—and Poma Murialdo's mandate—is to preserve that uniqueness while bringing the collection and the villa into the 21st century. And that starts with the restoration and study of the marbles themselves.

There's no preamble once you step inside the collection's laboratory and warehouse. Even if you know nothing about antique sculpture, it's hard not to be awed. Row after row of shelves reach to the ceiling, lined with busts about 2,000 years old. In one room, there are lines of monumental statues, some over 10 feet high. In another—the laboratory itself—a statue of a nude woman, leaning slightly forward, is in the midst of conservation, with a piece of metal peeking out from a gap in her shapely thigh. In yet another room—the most impressive of the lot—scores of statues, each on its own palette, stand in a visual cacophony of gods, goddesses, athletes, animals, emperors and heroes.

It's there that Carruba, the conservator, examines an exquisite statue of a nude youth, roughly 5 feet tall. Lean and elegant, the boy stands *contrapposto*, with one leg leaning against a small tree stump; one hand holds what appears to be a baton, the other is outstretched in a welcoming gesture. His curly hair covers his forehead and most of his ears. The face is young, but the sculpture looks undoubtedly old—created ►

Rows of conserved busts, several shrouded in plastic to protect them from dust, wait on shelves in the Torlonia Collection's storage facility



◀ roughly two millennia ago. As if to reinforce its antiquity, the figure is covered in a layer of dark dust, one leg is broken in two places, and the left shoulder appears shattered and patched together.

But like many of the statues in the collection, appearances are deceiving. This young man is actually an antique Frankenstein's monster, a collection of different, ancient and more recent parts that the Torlonia family's in-house artisans found or made and stuck together two centuries ago. "Giovanni Torlonia gathered all these ruins and gave them dignity," Carruba says. "The great thing that Torlonia did for himself was to make his soul immortal, by saving all these works."

To be sure, some antique marbles were acquired whole or almost whole; the Torlonias have about 100 of those, too, and they are some of the jewels of the collection. The *Hestia Giustiniani*, a towering female figure based on an early Classical Greek bronze, is considered an exceptional rarity. But many are patchworks, with new additions (a nose here, a hand there) carved from marble and grafted on as needed. For instance, the head of the youth, Carruba says, is neoclassical (which is to say, a modern addition).

This approach, common at the time the Torlonias assembled their collection, was considered intrinsic to antiquities collecting. At various points, some of the greatest sculptors of the 17th and 18th centuries, including Gian Lorenzo Bernini, restored pieces that ended up in the Torlonia Collection. Bertel Thorvaldsen, whose work now fills the Thorvaldsen's Museum in Copenhagen, also restored marbles the family owns. (He worked on them before the Torlonias bought them, and he may have been directly employed by the family, too.) So did slightly less famous but equally prestigious restorers including Bartolomeo Cavaceppi, whose Roman studio was a must-visit stop for aristocratic

foreigners on the Grand Tour. Giovanni Torlonia bought a large portion of Cavaceppi's entire collection outright.

Carruba's goal, therefore, isn't to disassemble the sculptures into their original parts; it's to conserve the sculptures while preserving traces of their previous restorations. "What Torlonia achieved, and what I, as a restorer, try to give back to these works, is their sense of beauty," she says. "Fifty percent is the study of the marbles, and 50% is cleaning and stabilization."

To clean most of the statues, conservators first encase them in a paper pulp soaked in ammonium carbonate, which



Many of these sculptures were initially intended to adorn private homes and public spaces throughout ancient Rome

dissolves the dust accumulated over the decades. They then peel off the pulp and wipe down the marbles with a sponge or swab, keeping in mind that the goal is to remove this surface grime without interfering with the marble's natural patina. Next the sculptures are diagrammed, documented and photographed, with each part of the body examined and classified: Is that leg a modern addition, meant to look old? Is the neck the same marble as the face?

Finally, the actual restoration kicks in. It can entail replacing the yellowing, toxic mortar used by 18th century and 19th century technicians; Carruba's team substitutes it with a material that's safer and more aesthetically pleasing—blending in with the marble without masking the intervention. When complete, the Italian Ministry of Cultural Heritage and Activities signs off on the statues; some are then covered in protective plastic to keep off dust, giving them the appearance of very large Easter chocolates.

The process is straightforward, but it's also incredibly time-consuming. Each statue requires the work of at least one conservator, plus photographers and other consultants weighing in on restoration decisions. From start to finish it can take several weeks to multiple months, depending on the piece's size and complexity. Accordingly, the cost of restoring a single object ranges from a few thousand dollars to more than \$100,000. To date, more than 150 marbles have been completed, meaning there are about 475 to go. But that's just in the Torlonia Collection. The Villa Albani Torlonia has about 1,000 additional pieces that will eventually require attention, and the villa itself, where every niche, cornice, mosaic and wall hanging is either ancient or designed as a glamorous showpiece, also requires upkeep.

The goal is for foundation revenue to sustain the collection without family input, says Poma Murialdo. It's partnered with the Italian jeweler Bulgari to sponsor the restoration of many of the collection's pieces, and the international law firm Chiomenti sponsors the foundation's overall activities. Plus, when the foundation lends sculptures to museums, those institutions pay to clean dozens of marbles for each show.

To date, about 90 pieces were the subject of a solo exhibition at the Capitoline Museums in Rome (on view from 2020 to 2022), which then traveled to the Gallerie d'Italia in Milan. Next came a separate blockbuster show at the Louvre, "Masterpieces From the Torlonia Collection," which ran from June 2024 until January. That show integrated 63 works from the collection (12 of them new restorations) with some pieces from the Louvre's own holdings. About 740,000 visitors attended the show, making it the museum's most-visited exhibit of 2024, the foundation says. Even as pieces from the Louvre were being crated and returned to Rome, the collection was able to field a different exhibition of 58 marbles, which it shipped to the Art Institute of Chicago for "Myth and Marble: Ancient Roman Sculpture From the Torlonia Collection." That show runs from March 15 to June 19 and then travels to the Kimbell Art Museum in Texas, then to the Montreal Museum of Fine Arts. For this second show, 28 sculptures were cleaned and restored, and 25 will be displayed; the rest



A fully conserved statue of Diana in the conservation laboratory will go on view at the Art Institute of Chicago starting March 15

will be drawn from the foundation's existing, already cleaned pieces. "We think of this show as an introduction to a US North American audience who may not be very familiar with the ins and outs of Roman sculpture and Roman iconography, but did see *Gladiator II*," says Çakmak, the Art Institute's co-curator. "We are trying to bring the past to our current moment."

For Poma Murialdo, this is just the beginning. The ultimate aim, he says, is to raise funds to build a private museum, ideally on land belonging to the Villa Albani Torlonia. "If you open a Torlonia museum," he says, "it's something that will stay on for centuries as the biggest operation in antiquities in the world." Poma Murialdo says he hopes the touring shows allow people as far afield as China and the US to learn more about the foundation and the Villa Albani Torlonia. The end goal—namely, a permanent space for the pieces that aren't touring—remains an abstraction, but Poma Murialdo is confident that it will eventually become a reality.

He remains ideologically flexible about how that reality will manifest itself. "We are not the only stakeholders discussing this," he says. "There is the state, there is us, and there is the eventual sponsor of something like this, which might want to do something else." It is, he concludes, "a long process, but a very noble and interesting process to be a part of." **B**

On Stage, Page And Screen



By Sarah Rappaport and Esther Zuckerman
Illustrations by Simon Landrein

Movies

MICKEY 17

Brilliant South Korean director Bong Joon Ho (*Parasite*) returns to the satirical wackiness of earlier works such as *Snowpiercer* and *Okja*. Robert Pattinson stars as an “expendable” grunt who’s on a mission to colonize a new, icy planet and has elected to die horribly again and again while his body is reprinted. *March 7*

BLACK BAG

The setup—married spies forced to confront each other—might evoke 2005’s *Mr. & Mrs. Smith*, but Steven Soderbergh delivers a smart and sexy spectacle that aims higher. When Kathryn (Cate Blanchett) is suspected of leaking delicate intel, can George (Michael Fassbender) meet his professional obligation? *March 14*

THE FRIEND

In need of a good cry? Naomi Watts has you covered in this dramedy, based on the National Book Award-winning novel, about a writer who takes in a Great Dane after the suicide of her mentor (Bill Murray). *March 21*

THE LIFE OF CHUCK

This Stephen King adaptation won over the 2024 Toronto International Film Festival. More weird than scary, it’s an apocalypse narrative told in reverse—and with one long dance break. You may just find it life-affirming. *May 30*

Television

THE RESIDENCE

If *Scandal* and *Bridgerton* were torrid soaps, the latest from Shonda Rhimes’ production company is pure caper. Uzo Aduba stars as a quirky sleuth brought in to investigate a murder at the White House. *Netflix, March 20*

WOLF HALL: THE MIRROR AND THE LIGHT

Few literary adaptations have been as exquisitely executed as the BBC version of *Wolf Hall* in 2015. Now, Thomas Cromwell and Henry VIII are back for six more episodes. *PBS, March 23*

THE STUDIO

Seth Rogen stars as the newly elevated head of Continental Studios, tasked with adapting the Kool-Aid Man into a property not unlike *Barbie*. It’s self-referential (Martin Scorsese plays a big role), it’s anxiety-inducing, and the timeliness is laugh-out-loud funny. *Apple TV+, March 26*

YOUR FRIENDS AND NEIGHBORS

If you missed the misanthropy of *Mad Men*-era Jon Hamm, he’s back as a hedge fund manager turned thief, robbing his neighbors of cash and Patek Philippes. Showrunner Jonathan Tropper (*Banshee, Warrior*) doesn’t waste any of the rich premise. *Apple TV+, April 11*





Books

NONFICTION

❶ *When the Going Was Good* by Graydon Carter (March 25): RIP, magazines; legendary *Vanity Fair* editor pens profile on himself. ❷ *Yoko* by David Sheff (March 25): Icon, villain, artist, seductress, human—Ono's untold story, finally told. ❸ *Cellar Rat* by Hannah Selinger (March 25): Sommelier names names in sizzling memoir of fine dining abuses. ❹ *The Golden Road* by William Dalrymple (April 29): Historian chronicles unsung achievements of ancient India as civilization maker. ❺ *Capitalism and Its Critics* by John Cassidy (May 13): 200 years, 643 pages, a historical polemic for the proles.

FICTION

❻ *The Usual Desire to Kill* by Camilla Barnes (April 1): Playwright's debut novel crackles with the eccentricity, unknowingness of family. ❼ *Big Chief* by Jon Hickey (April 8): Taut, powerful political thriller unravels like a Native American *Succession*. ❽ *Stop Me If You've Heard This One* by Kristen Arnett (May 18): Lesbian clowns in love are very much a laughing matter. ❾ *So Far Gone* by Jess Walter (June 10): *Taken* for journalists; can a washed-up recluse rescue his grandkids?

Broadway

OPERATION MINCEMEAT

A wild, true World War II intelligence caper inspired this rolling-in-the-aisles romp, which won London's Olivier Award for best new musical in 2024. *From Feb. 15*

OTHELLO

Denzel Washington sinks his teeth into Shakespeare's jealous hero, while Jake Gyllenhaal plays the villainous Iago. It's the first Broadway staging of the play since 1982. *From Feb. 24*

THE PICTURE OF DORIAN GRAY

Succession's Sarah Snook takes all 26 roles in this show that shifts the Oscar Wilde novel into the age of Instagram. Her bravura performance in London earned her the 2024 Olivier for best actress. *From March 10*

SMASH

The bingeable 2012 TV drama about Broadway talents creating a Marilyn Monroe musical has inspired its own new show, starring Robyn Hurder and Krysta Rodriguez. *From March 11*

STRANGER THINGS: THE FIRST SHADOW

Netflix Inc.'s first stage production is a prequel to its popular TV series, rewinding

to the 1950s and the start of paranormal phenomena in Hawkins, Indiana. Expect wildly inventive theatrical magic and familiar synth tunes. *From March 28*

The West End

UNICORN

A provocative new play from celebrated British writer Mike Bartlett stars Nicola Walker and Stephen Mangan as a couple who add a third person—*The Crown*'s Erin Doherty—to their marriage. *From Feb. 4*

MUCH ADO ABOUT NOTHING

Superstar director Jamie Lloyd's Shakespeare season continues with his take on the Bard's comedy, with Marvel and stage veterans Tom Hiddleston and Hayley Atwell playing Benedick and Beatrice. *From Feb. 10*

THE SEAGULL

Two-time Oscar winner Blanchett heads to the Barbican for a new production of Anton Chekhov's masterpiece about aspiring artists, love and ambition. *From Feb. 26*

MY MASTER BUILDER

Ewan McGregor returns to the West End for the first time in almost two decades in a new play inspired by the Henrik Ibsen classic. He plays an architect with a messy personal life about to unveil his new project. *From April 17*





THE NEW PITCH

Premier League Goes Premium

By Ed Stapley and David Hellier

Illustration by Rob Torrains

When the Toffees take the field at Everton FC's brand-new stadium in Liverpool this August, fans in the Club View lounge will rub shoulders with former players, toss back high-end drinks and indulge in pricey food before finding enviable seats in the elevated halfway line zone. They'll also fork out £1,200 (\$1,494) a season for the privilege. An even more VIP crew will be in the Enclosure, a series of fenced-off four-seat loges on Level 1 offering panoramic views of the pitch, recliners, personal TVs for replays and a concierge service to deliver food and order a taxi home. If you have to ask how much it costs, it's not for you—anyway, it's already sold out.

All this luxury is a far cry from the working-class roots of English football fandom. A typical game-day schedule used to go like this: Grab some pints near the stadium; yell tribal, passionate chants for 90 minutes; taunt the losers; then exit swiftly to beat the crowds home. Unless you were in a corporate box, tickets were priced for everyday fans, and the brevity of the experience along with a lack of compelling hospitality options meant that, historically, stadium revenue wasn't such a sizable revenue stream.

The economics of the game, specifically skyrocketing player salaries and transfer fees, are changing that. In England, Premier League regulations now limit how much teams can splash on superstars—and bar their billionaire owners from paying for them out of pocket. Financial losses are capped at no more than £105 million over a three-season rolling period; beyond that, clubs are docked points, as Everton and Nottingham Forest FC were last season—8 and 4 points, respectively—pushing them toward relegation. (At the end of the season, the three bottom-ranked teams are dropped to England's second-tier league, known as the Championship, while that division's top three teams are promoted.)

With broadcast revenue plateauing and commercial revenue such as merch and sponsorships dependent on performance, match-day takings remain the last lever a club can pull to afford a winning squad. Only 4 of the 20 made an operating profit in the 2022-23 season, according to the latest figures. So, with Americans now owning half the teams, it's no coincidence that Yankee-style sports capitalism has come to English stadiums.

“The US sports hospitality market has been traditionally much more driven by more activity going on off-site. In England and wider Europe, it is more driven by the on-site seat quality, traditionally with less access to players,” says Paul Caine, president of On Location and IMG Events, a company that organizes hospitality for a wide range of sports tournaments, including the NFL, the FIFA World Cup and the Olympics. English clubs, however, are waking up to the money they’re leaving on the table, he says.

Aston Villa FC fans now have the choice of 18 different match-day ticket tiers; at Tottenham Hotspur FC, there are approximately 22, all ranging in price and degree of luxury. Of Chelsea FC’s 17 options, the club’s top-tier tickets provide access to a newly carved-out “Dugout” behind the substitutes’ benches, and ticket holders get to walk onto the pitch while the players are warming up; prices reach as high as £12,500 for a single game.

The wealthiest fans at Arsenal FC’s Emirates Stadium, which offers seven tiers of tickets, can join the Diamond Club, sponsored by JPMorgan Chase & Co., for more than £30,000 a year. There they can settle into heated seats on cold winter nights and enjoy a drink from the backlit onyx bar, before dining in the swish open-plan restaurant or one of its private booths. It’s an add-on being replicated across England.

“We’re responding to fan demand for elevated experiences,” says Russell Wood, Brighton & Hove Albion FC’s head of commercial. He says the goal is to cater to a range of demographics. The club plans to expand its 31,000-capacity stadium as part of a £40 million infrastructure project that will add a second 1901 Club with 600 premium seats, due to open in time for the 2026-27 season. Crucially, infrastructure debt is exempt from a club’s profit and sustainability calculations, creating an incentive for owners to fund revenue-boosting stadium upgrades.

Not all fans are happy. “Lifeless, soulless and without passion” is how Dominic Rosso, vice chair of the Chelsea Supporters’ Trust, described via email the future of Stamford Bridge if more and more seats get apportioned to hospitality; currently about a quarter are premium. Stephen Morley of the Aston Villa Supporters’ Trust wrote of the same frustration, noting instances of seats being changed or friend groups being split by the growth in corporate facilities: “You cannot achieve success at the expense of loyal fans who have stood by the club for years.”

It’s been a trend 20 years in the making, says Christopher Lee. As senior principal of the global architectural company Populous, he’s worked on the design and developments of more than 30 stadiums on five continents—including the latest Premier League stadiums belonging to Arsenal, Fulham, Manchester City and Tottenham Hotspur. Instead of cookie-cutter corporate boxes, he says, today’s fans want smaller, bespoke clubs within clubs, each with different angles and price points, that give spectators an air of exclusivity along with the feeling that they’re part of something bigger. “When we designed the Emirates in 2006, we had 152 boxes,” Lee remembers. “At Tottenham Hotspur we only have about 70.”

That £1 billion stadium became the platinum standard for this new era of Premier League hospitality when it opened in 2019. Along with premium lounges offering fine dining and bar

packages, Spurs fans have access to an on-site brewery and Europe’s longest bar, in the Market Place, an area that can draw 17,000 people in the hours before and after a match. Revenue in this space alone outperforms all the general admission courses combined at Arsenal’s Emirates Stadium, Lee says.

There’s also a Tunnel Club, which costs roughly £15,000 per season (plus a one-off joining fee). The fast-growing amenity is inspired by the paddock clubs of the richest sport around: Formula One. Pioneered at Manchester City’s Etihad Stadium in 2017, the private restaurant-lounge has a wall of windows to offer pregame extreme proximity to the players as they line up to enter the pitch. Brighton & Hove Albion introduced its own version last season, and outside England, FC Barcelona is considering the option, too, Lee says.

This mix of destination-worthy amenities across all price points has pushed up the average amount that general admission fans spend to about £15 per game, Lee says; at the Spurs’ previous White Hart Lane stadium, it was less than £2. Tottenham now averages £4.8 million in revenue per home match, the highest in the league. If it wants, it can pump all of it back into the players’ wages and the transfer budget.

Consider Everton, and the competitive advantage of premiumization is clear: Departing owner Farhad Moshiri predicts match-day revenue at the team’s new stadium will increase to £43.7 million per season from a little less than £20 million at Goodison Park. That revenue bump could cover a player like Mohammed Salah, Liverpool FC’s much-revered forward, who pulls in an annual gross salary of about £18 million per year.

Bill Foley, owner of AFC Bournemouth, whose 11,000-seat stadium is the smallest in the Premier League, is keenly aware of the impact game-day receipts can have. “We need to modify our stadium, or develop a state-of-the-art stadium with proper hospitality, to enhance revenue and allow us to put more resources into the squad, rather than being forced into selling players earlier than necessary,” he says.

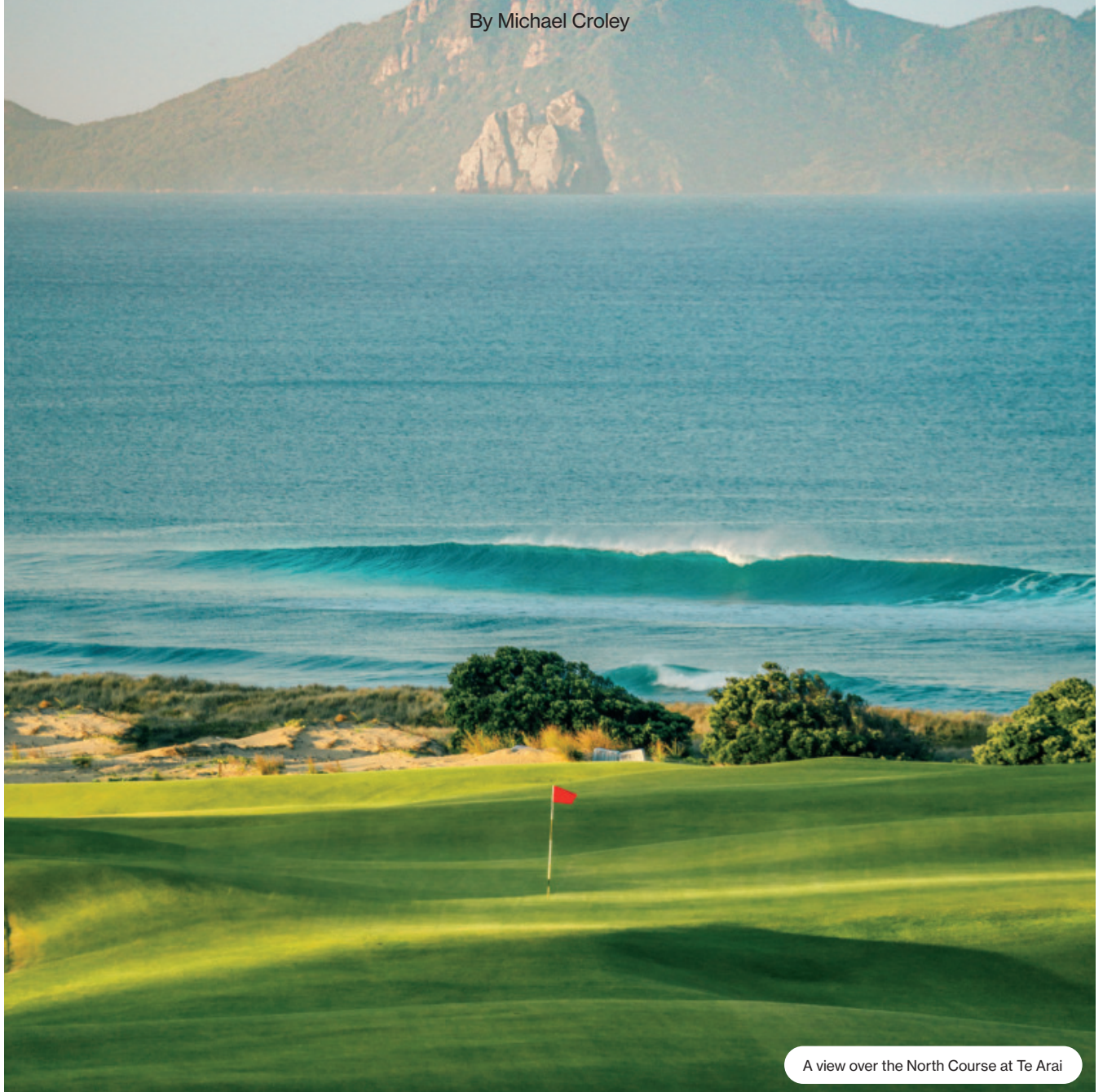
More productive stadiums can also help with financial stability during periods of volatility on the pitch, such as relegation, when broadcast and commercial revenue take a major hit. They need never sit fallow either. Manchester City’s £300 million North Stand fan zone, opening next season, comes with not only high-end bars and restaurants and 7,900 more seats, but also a 400-bed hotel, commercial office space and a new club shop and museum. “It’s very much about how we can create amazing experiences on match days but then sweat the asset and make the stadium work genuinely seven days a week,” Lee says.

Fulham FC’s Riverside Stand at Craven Cottage, which also opens this year, is conceptually a year-round private members club that just happens to have a seating tier on one side. During football games, the doors are open to the pitch, but on the other five or six days a week, its luxury hotel, bars, restaurants, spa and rooftop infinity pool transition into desirable standalone entities set along the Thames River. Caine, whose IMG formed a partnership with Fulham on hospitality sales last year, says, “The development is transforming the stadium’s riverside walkway into a world-class leisure destination.” **B**

AT THE FORE

New Zealand's Golf Coast

By Michael Croley



A view over the North Course at Te Arai

■ RICKY ROBINSON/COURTESY TE ARAI LINKS

Julian Robertson got into the golf business by accident. The famed founder of Tiger Management, who passed away in 2022, took his family on a self-imposed sabbatical to New Zealand in 1978 while he was still in his 40s. “They lived in Auckland,” says his son Alex, who wasn’t born yet, and “traveled the whole country. He had a really high opinion of the people and the natural beauty of the land.”

Shortly after Robertson returned to the States, a friend showed him pictures of a ranch he’d bought in New Zealand. Intrigued, Robertson told his friend that if his real estate guy had anything else interesting he should come by. A few days later, the man was in Robertson’s office, showing him a 6,000-acre tract of beautiful land tumbling down to the cliffs over Matauri Bay, almost four hours north of Auckland. “He was immediately enamored,” Alex says, and bought it as an investment.

But as an avid golfer who had played at remote courses in Ireland and Scotland, Robertson quickly saw the possibilities for a set of links. Despite zero experience developing a golf course, he embarked on creating one from scratch. When it was almost done, his wife, Josie, wondered where people were going to stay. “It won’t matter,” Robertson said. “It’s going to be such a pretty place and such a great course, people won’t really care.”

Josie cared. “That led the way for the lodge,” Alex says, “and that began Kauri Cliffs. Within a few months, somebody got in touch with him about Cape Kidnappers.” That property, 15 hours south by car, on Hawke’s Bay near the art deco town of Napier, would be Robertson’s second course and hotel. The Robertson Lodges, which are now managed by Rosewood Hotels & Resorts LLC, are smallish affairs, with a few dozen suites and cottages. But both properties helped establish New Zealand as a world-class golf destination.

Now, some 20 years later, the ambitious Te Arai Links complex is cementing the nation’s reputation in the golf firmament. “I’ve said this many times: If Julian hadn’t done what he did, I don’t know that we’d be here,” says co-developer Jim Rohrstaff.

Te Arai is a public resort created by Rohrstaff and Ric Kayne, an American billionaire hedge fund manager who founded Kayne Anderson in 1984. Kayne’s first local golf project was Tara Iti, a private course that opened in 2015 and is currently ranked seventh in the world by *Golf Digest*. Sitting among coastal sand dunes and providing views of the ocean from almost every hole, Tara Iti quickly became a coveted invitation in the world of private golf. Mike Keiser, developer of Oregon’s Bandon Dunes Golf Resort, says, “It’s the most beautiful golf course I’ve ever seen.”

Rohrstaff, a Michigan native, was hired by Kayne to help open and oversee both Tara Iti and the newer Te Arai, which opened in 2022. Rohrstaff candidly—and perhaps brazenly—says the whole endeavor is an attempt to create a “17-Mile Drive of the Southern Hemisphere,” referencing the Monterey Peninsula’s trio of enchanting golf courses: the exclusive Cypress Point Club and the two public resort courses, Pebble Beach and Spyglass Hill.

They’re off to a great start: Both Te Arai courses have jumped into the top 40 in *Golf Digest*’s most recent world ranking. Each reflects its coastal environment, enticing visitors with holes playing up to the edge of the Pacific.

Sought-after designers Bill Coore and Ben Crenshaw have fashioned 16 holes of the South Course to have ocean views and wide, ambling fairways with gentle rises and falls that are also indicative of its greens. The fairways at Tom Doak’s North Course are similar in width, but they have bolder features with more pronounced knobs, humps and bumps. Larger inland dunes are mirrored on the putting surfaces, which feature more tumble and bold contours.

Noting that Robertson’s early developments were intimate affairs, Rohrstaff says Te Arai “is a full-scale monster. It has 110 rooms, a spa, gym and all the amenities.” The resort says its two-acre putting green, called the Playground, is the world’s largest. There are four restaurants and activities that extend well beyond golf, including basketball, walking trails, horseback riding, water

sports and in-villa spa treatments. Don’t worry, pickleball and tennis are also available.

The hospitality options at Tara Iti and Te Arai were both created by Studio John Irving Architects, which has built mid-century modernist structures with walls of glass that are tucked back from the fairways, allowing for a glimpse of the ocean during morning coffee. Interior design was handled by Kayne’s daughter, Jenni, whose high-end home goods furnish the lodging.

Kayne and Rohrstaff are embarking on another golf course project near Queenstown on the South Island. Unlike the coastal beaches of their first development, Queenstown is in an alpine region known for adventure sports, and it’s near many of the country’s famous vineyards. The pair recently bought the Hills, a private club that “checks all the boxes,” Rohrstaff says.

“What really gets me pumped in Queenstown is that it’s an outdoor playground. It has water sports, fly fishing—some of the best mountain biking trails and hiking trails in the world are right there at our doorstep.” The coastal activities of Te Arai are great, he says, but in Queenstown, guests will also have access to “skiing, wineries and great restaurants.”

He also notes that flights to New Zealand have become more plentiful, with direct connectivity from the mainland US, including Chicago, Dallas and Houston—not to mention Air New Zealand Ltd.’s almost 18-hour nonstop route from New York’s John F. Kennedy International Airport to Auckland.

Rohrstaff has a vision for the new club, which is undergoing a multimillion-dollar renovation, including a complete overhaul of its golf course slated to open for play in 2028. It’s to craft the ultimate travel adventure for a group of friends. “We can go to the west coast, which is 20 minutes away in a chopper, land on some rocks, dive for crayfish, bring the crayfish back to the club, and the chef’s going to make those for us for dinner,” he says. “That’s an experience that you’ll talk about the rest of your life.” **B**

and pressed-flat croissants coated in white chocolate and marshmallows.

LONDON HEATHROW (LHR) Le Café Cyril Lignac at Louis Vuitton

Tucked inside the undulating entryway to the sparkling new Terminal 2 store, this upscale cafe marks the first collaboration between LVMH and acclaimed French chef Cyril Lignac. Croque monsieur, with or without truffles, and a Caesar salad embellished with smoked chicken and gluten-free croustons are present and accounted for—as are Lignac’s famous pastries.

HARTSFIELD-JACKSON ATLANTA INTERNATIONAL (ATL) One Flew South

Seasoned travelers have been known to route flights through the world’s busiest airport just to spend time at chef Todd Richards’ excellent bar and restaurant

in Concourse E. In the wood-ceilinged dining room, he serves peppered pork belly ramen with collard greens in a rich broth and a BLT&E featuring meaty bacon, pickled green tomatoes and a fried egg. For early flyers, there’s a cold-brew-laced red-eye martini.

AUSTIN-BERGSTROM INTERNATIONAL (AUS) The Salt Lick BBQ

The Central Texas destination has been smoking meat over oak and pecan for more than 50 years. Its local airport spot, between gates 20 and 21, serves travelers platters of caramelized pulled pork and brisket and spiced Hill Country sausage.

SAN FRANCISCO INTERNATIONAL (SFO) Bun Mee

This no-nonsense Vietnamese enterprise in Terminals 1 and 3 is part of the reason *Food & Wine* has dubbed SFO

one of the best food airports in the US. The classic banh mi sandwiches come stocked with sweet grilled pork, fatty mortadella and pâté de campagne in a toasted baguette—alongside fun twists such as a rib-eye steak dip served with a side of flavorful pho broth.

BENITO JUÁREZ INTERNATIONAL (MEX) Iwashi Sushi

If your Mexico City connection is tight, make other plans, because Iwashi is walk-in only and there’s always a line. But the best thing you can do at MEX is hit Edo Kobayashi’s Terminal 2 counter for expertly crafted sushi using seafood flown in from Japan. Selections include nigiri such as octopus and shimaji (striped jack), plus less conventional options like eel with foie gras and vegetarian shiso with plum. You’ll also find the occasional unusual “Japanese fishing special.”

CEO DIET

What the Boss Always Packs

CARLY ZAKIN

The Skimm

“My packing essentials are all about comfort and practicality. I always carry a Brookstone neck pillow and one softer pillow option from the Hudson newsstand. A plane pillow is nonnegotiable for me—it makes a huge difference on long flights.”

JOHANNES RECK

GetYourGuide

“Keep it light! Essentials only. For me, being present is key, though I’ve always got my AirPods for calls or a podcast or audiobook on the plane, and a good pair of running shoes. Some of my most innovative ideas come from activities like running.”

GARA POST

The Now Massage

“When it comes to tech, I never travel without charging ports, batteries, a backup iPhone, my Kindle and a Canon Powershot G7 X camera to stay connected and capture the moment.”

DOR BERKOVITZ

Foyer Project

“For a quick weekend, my Rimowa carry-on is the best mix of functional and stylish; for upstate, my Satchel & Page leather weekend bag is so easy to pack. I’m loving the flexibility of the Aonimi mini battery—it can charge my phone without disrupting my calls. I can get bogged down and miss meals, so my wife always sneaks in some healthy snacks so I won’t complain of a headache: a Wise Bar, Harmless Harvest Coconut Water, nuts and dry fruit. (I love mango slices.)

CATHY O'BRIEN

Naturopathica Holistic Health

“Veronica Beard Beverly jeans (they’re form-fitting and flattering for girls with long legs); gray Adidas sneakers; a white dress; tall black Louboutin boots; a white and a black Nili Lotan button-down; a pair of black Eberjey pajamas; Bombas slippers; diamond studs; vitamins and my anti-estrogen pill, for the breast cancer thing. (I was diagnosed in 2023 and completed radiation last May.) A travel backgammon set and deck of cards—always fun for the plane or to do over drinks with a friend or colleague.”

JONATHAN SWERDLIN

Function Health

“I always pack one pair of AG jeans, Blundstone leather boots and a white button-down—the essentials. The rest is versatile, comfy clothes for any setting. My stress survival kit includes a portable speaker, red-light nightlight, blue-light glasses, massage gun, workout bands and electrolytes.”

LIANA DOUILLET GUZMÁN

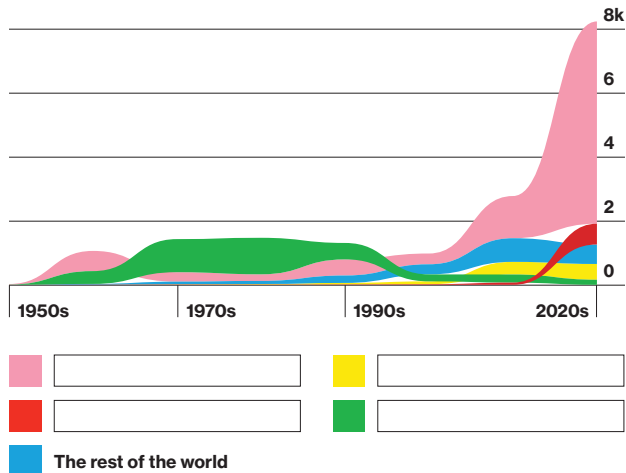
Folx Health

“I rely on checklists I’ve built and refined over the years—for beach vacations, ski trips, city visits and even stays with friends. For work travel, I keep an airport bag that never gets unpacked. It’s stocked with essentials: travel chargers, headphones, water bottle, Global Entry card, blanket and pillow. All I need to do is toss in my laptop, and I’m ready to go at a moment’s notice.”

Oh, no! The graphics editor tripped on the way to the printing press and lost some of the chart labels. Can you place each label in the correct spot on each chart? Turn to page 12 for the answers.

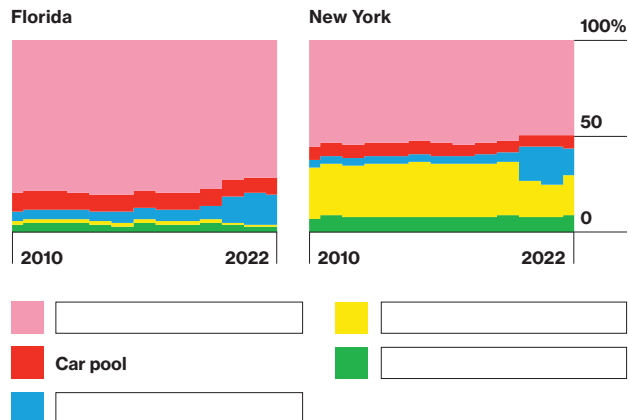
Objects Launched Into Space Each Decade, by Country

Labels: Russia China US UK



How Americans Commute to Work

Labels: **Work at home** **Take public transportation**
Walk, bike, taxi and other **Drive alone**



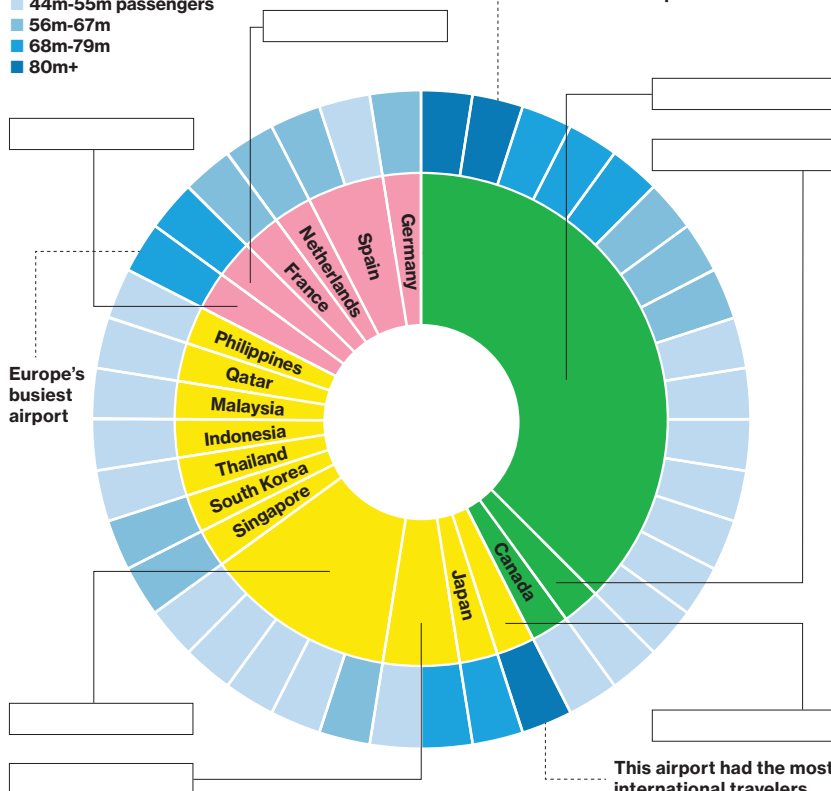
The Countries With the World's 40 Busiest Airports in 2023

Labels: India US Turkey UAE UK China Mexico

■ Europe
 ■ North America
 ■ Asia

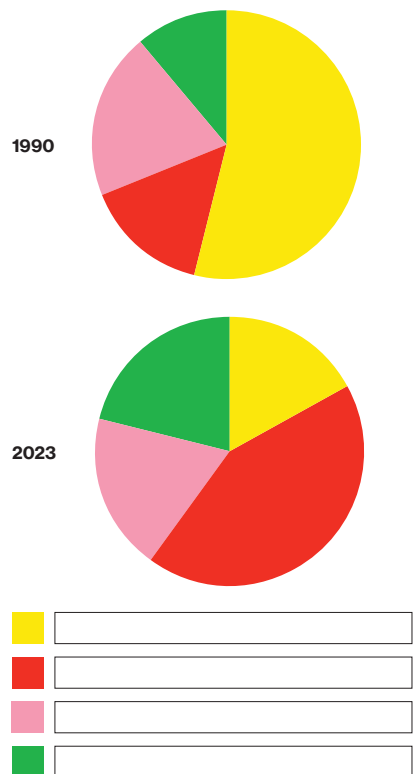
■ 44m-55m passengers
■ 56m-67m
■ 68m-79m
■ 80m+

Each blue sliver
is one airport



US Electricity Generation, By Fuel Type

Labels: Natural gas and petroleum Coal Renewables Nuclear



■ DATA: UNITED NATIONS OFFICE FOR OUTER SPACE AFFAIRS; US DEPARTMENT OF TRANSPORTATION; AIRPORTS COUNCIL INTERNATIONAL; ENERGY INFORMATION ADMINISTRATION

From your first design pitch to the new soccer pitch, every move matters.

With financial expertise and digital tools from
Bank of America, you're one step closer to reaching
your business goals — and exceeding them.
What would you like the power to do?®

Visit bankofamerica.com/bankingforbusiness.

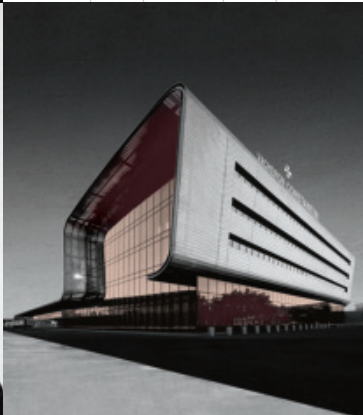


"Bank of America" is the marketing name used by certain Global Banking and Global Markets businesses of Bank of America Corporation. Lending, other commercial banking activities, and trading in certain financial instruments are performed globally by banking affiliates of Bank of America Corporation, including Bank of America, N.A., Member FDIC. ©2025 Bank of America Corporation. All rights reserved.



270 YEARS
OF DOING BETTER
IF POSSIBLE

*And That is
always
Possible*



IN 1755, IN GENEVA, A QUEST BEGINS. A QUEST FOR EXCELLENCE IN HIGH WATCHMAKING.

A QUEST OF PASSION, PERSEVERANCE AND MASTERY.

A QUEST TO « DO BETTER IF POSSIBLE, AND THAT IS ALWAYS POSSIBLE ».

A QUEST THAT NEVER ENDS.

VACHERON CONSTANTIN CELEBRATES SEEKING EXCELLENCE FOR 270 YEARS.

*the
Quest*



VACHERON CONSTANTIN
GENÈVE

DISCOVER MORE ON VACHERON-CONSTANTIN.COM

CONTACT US: +1 (877) 701 1755